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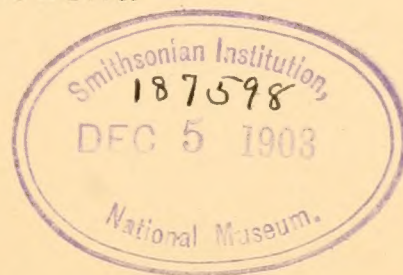
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BIRDS: THEIR NESTS AND EGGS.

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THE
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No. 1.

Geographical Variation of Eggs.

Although the subject of Geographical variation of birds has at various times received considerable attention, I am not aware that much thought has been bestowed on the presence of a similar difference in eggs, and thinking that the little information I have been able to gain upon this question might be of some value to the readers of the ORNITHOLOGIST AND OÖLOGIST, I have made the following summary of my researches in that line, hoping that it will at least draw the attention of those better able to investigate the matter than myself, to give their ideas and the results of their investigations for the perusal of those interested.

Among the birds themselves local variation has been systematized to a considerable degree by the works of Baird and of Allen, and according to their observations may be divided into two classes, viz.: variation in color and in size.

Eggs unquestionably vary in color in a uniform degree, but the great range of individual coloration makes it impossible to establish the general laws without a far greater amount of comparable material than I have been able to obtain, but variation included under the second heading, is to a certain extent as applicable to eggs as to the birds themselves.

The researches of Prof. Baird on the subject of geographical variation have established the law that "a gradual decrease in size, in individuals of the same species, occurs in direct ratio to the decrease of latitude or altitude of their birthplace," and this seems with a greater number of exceptions to hold good in the case of eggs.

As there are more conditions which influence the size and structure of an egg to a greater degree than among birds, a larger per centage of them would naturally be expected to be inconsistent with any general rule or law.

Some of the influencing conditions would be age of one or both parents, varying number laid in a set, number of consecutive clutches, and the scarcity and variety of food. Examples of the first of these influences will be apparent to all who are in any way familiar with birds. A good one which I call to mind is the eggs of Fish Hawks (*Pandion haliaëtus carolinensis*), for as these birds return yearly to the same nest, the chances for observation are greatly increased. Among them the oldest birds usually lay eggs which average smaller than those of younger pairs, or else the number in the set is smaller.

Traces of the second influencing condition are not always perceptible, especially among eggs which are only found in small sets, but even then are occasionally noticeable.

Among the *Gallinæ* and *Picidæ*, both families being prolific layers, the effects of the third condition are frequently noticeable, and one instance will be sufficient for illustration, that of a Flicker (*Colaptes auratus*), that laid a set of ten eggs, which upon being removed laid a second set of five. The average measurement of the first set was 1.11 x .84 of an inch, while the maximum of the second set was .99 x .92, and the minimum .96 x .80.

Besides the foregoing there are occasionally instances where the great variation amounts to a monstrosity, and seems to be inconsistent with any law, but as these monstrosities are frequently or always infertile, they do not bear, with any importance, upon the question in consideration.

So much for statements. Now for the corroborating data. The following list of measurements will show the variation of eggs from different parts of the country. The measurements represent the size in inches and hundredths, but vary from ordinary measurements inasmuch as the averages of the two diameters are given, or in other words give the size of a spherical bulk of the same capacity as the egg it represents.

NAME.	LOCAL- ITY.	NO. MEAS.	MAX.	MIN.	AVE.	Harporyhynchus rufus, var.					
Podilymbus podiceps,	Cal.	5	2.00	1.45	1.56	longirostris,	Tex.	2	.86	.86	.86
" "	Wis.	5	1.45	1.42	1.43	Troglodytes ædon,	R. I.	6	.59	.57	.58
Gallinula galeata,	Fla.	6	1.49	1.42	1.46	" "	Ill.	7	.59	.58	.58
" "	Wis.	7	1.59	1.51	1.54	" "	Iowa	7	.59	.57	.58
Ardea virescens,	Tex.	4	1.39	1.26	1.31	var. park-					
" "	R. I.	8	1.37	1.27	1.34	mani,	Cal.	12	.61	.58	.59
" "	Ill.	4	1.40	1.35	1.37	Parus atricapillus,	R. I.	21	.56	.53	.54
Bonasa umbellus,	R. I.	20	1.42	1.33	1.36	" "	Ill.	6	.59	.58	.58
" " var. sabini,	Ore.	7	1.45	1.42	1.43	" " occidentalis,	Or.	7	.55	.54	.54
Cathartes aura,	N. C.	2	2.31	2.20	2.25	Polioptila caerulea,	N. J.	4			.53
" "	Penn.	2	2.41	2.36	2.43	" "	Miss.	4	.52	.51	.51
Accipiter cooperi,	Mass.	7	1.78	1.61	1.72	" "	Tex.	5	.53	.52	.52
" "	Iowa	4	1.79	1.72	1.83	" " var. plumbea,	Arizona				.53
" "	Arizona	2	1.66	1.66	1.66	Hylocichla ustulata,	Or.	4	.78	.78	.78
Buteo borealis,	Tex.	15	2.23	1.99	2.09	" "	Cal.	4	.78	.71	.74
" "	Miss.	3	2.00	1.99	1.99	var.					
" "	Conn.	25	2.22	1.98	2.09	swainsoni,	Grand Manan	7	.79	.71	.74
" "	Mass.	12	2.12	2.03	2.06	Merula migratoria,	Mass.	37	1.01	.84	.95
" "	Minn.	2	2.22	2.22	2.22	" "	Minn.	4	.96	.92	.95
" "	Ohio	2	2.10	1.85	1.95	" "	var.				
" "	Iowa	11	2.15	2.09	2.13	propinqua,	Cal.	2	1.03	1.03	1.03
" " var. calurus,	Cal.	4	2.29	2.02	2.14						
Megascops asio,	Iowa	4	1.27	1.22	1.27						
" "	R. I.	3	1.97	1.27	1.50						
" " var. macalli,	Tex.	7	1.32	1.17	1.26						
" " var. bendirei,	Cal.	4	1.31	1.27	1.28						
Syrnium nebulosum,	Iowa	2	1.93	1.93	1.93						
" "	Ill.	2	1.80	1.80	1.80						
" "	Mass.	4	1.89	1.72	1.75						
" " var. alleni,	Tex.	10	1.27	1.27	1.27						
Dryobates pubescens,	Mass.	6	.71	.68	.70						
" "	R. I.	9	.74	.69	.71						
" "	Iowa	5	.73	.66	.69						
Corvus americanus,	Cal.	4	1.56	1.52	1.53						
" "	N. B.	3	1.42	1.40	1.41						
" "	R. I.	35	1.56	1.32	1.44						
" " var. floridanus,	Fla.	5	1.39	1.35	1.37						
Sturnella magna,	Minn.	3	.95	.91	.93						
" "	Ill.	4	.95	.91	.93						
" "	R. I.	5	1.00	.92	.97						
" " var. mexicana,	Tex.	4	.94	.94	.94						
Quiscalus quiscula,	R. I.	27	1.07	.97	1.03						
" " var. æneus,	Kan.	4	.88	.93	.96						
" " " "	Minn.	4	.94	.93	.93						
Icterus spurius,	R. I.	22	.75	.68	.70						
" "	Mich.	5	.70	.68	.69						
" "	Tex.	10	.79	.68	.70						
Melospiza fasciata,	Mass.	30	.70	.61	.62						
" " var. guttata,	Or.	8	.75	.71	.74						
Spizella domestica,	Mass.	24	.60	.51	.56						
" "	Vt.	4	.62	.58	.60						
" "	Minn.	4	.60	.59	.60						
" " var. arizonæ,	Cal.	4	.63	.61	.62						
Petrochelidon lunifrons,	Ill.	4	.72	.69	.70						
" "	Me.	20	.70	.64	.66						
" "	R. I.	5	.73	.69	.66						
Lanius ludovicianus,	Fla.	4	.80	.80	.80						
" " var. ex-											
cubitorides,	Cal.	17	.87	.83	.86						
Vireo solitarius,	Mass.	12	.70	.65	.66						
" " var. cassini,	Or.	4	.67	.67	.67						
" " var. plumbeus,	Col.	2	.64	.63	.64						
Dendroica pennsylvanica,	Me.	17	.62	.55	.58						
" "	Mass.	4	.57	.52	.55						
Icteria virens,	R. I.	2	.80	.79	.79						
" "	Penn.	26	.80	.69	.78						
" " var. longicauda,	Arizona	4	.76	.74	.75						
Harporyhynchus rufus,	R. I.	24	.93	.82	.90						
" "	Minn.	4	.92	.88	.91						

Among all families lower than *Raptores* I have been able to obtain but meagre material for comparison, the only example among the divers being that of the Thick-billed Grebe (*Podilymbus podiceps*), in which the Californian specimens are larger than eggs from east of the Rocky mountains.

In the *Gallinulinae* the size increases from south (Florida) to the north (Wisconsin), while with the Herons, the Texas specimens are smaller than New England examples, and these eggs are in turn inferior in size to those from the northern central states. Eggs of the grouse family show a like variation between eastern and western specimens, those of the Ruffed Grouse *Bonasa umbellus* of Southern New England being much smaller than those of *var. sabinei* of the Pacific coast.

Among the *Raptores* individual variation is so marked that in most instances a large series from each locality is desirable in order to obtain satisfactory results in comparison.

The eggs of the Turkey Buzzard, *Cathartes aura*, specimens showing a marked increase in size from North Carolina northward to Pennsylvania; the Red-tailed Hawk (*Buteo borealis*), which increase in size from Texas and Mississippi to the New England states; and the eggs of *var. calurus* from California seem to be smaller than some from east of the Rocky Mountains, viz.: Minnesota specimens, but possibly a larger series, (four being all that I have examined), would give other figures.

My third example, showing a geographical variation among the diurnal *Raptores*, is that of the Cooper's Hawk (*Accipiter cooperi*), which, east of the Central Plateau, vary in unison with the last example, but the two specimens

from Arizona (Pima Co.), are the smallest of any which I have measured.

Among owls, I have examples of two species — the Little Screech (*Scops asio*) and the Barred Owl (*Syrnium nebulosum*). With the former, eggs from Texas are the smallest, increasing in size to Iowa and Rhode Island, those from the latter state being the largest. The *var. bendirei* of the Pacific slope, like those of other *Raptores* from the same locality, persist in being smaller than eastern eggs, and in this case are inferior to Rhode Island specimens and only a trifle larger than the examples cited from Texas.

Of the *Picidæ* I have but a single instance, that of a Downy Woodpecker (*Dryobates pubescens*), in which the limited data gives the maximum to New England, while western eggs, usually the largest, are in this case the smaller.

The Common Crow (*Corvus americanus*), among the *Corvidæ* has a maximum in California specimens, and a minimum in the small Floridian variety, with New Brunswick and Rhode Island eggs coming in between, with a slight difference in size favoring Rhode Island eggs, due perhaps to the large number examined.

In the family *Icteridæ*, eggs of the Meadow Lark (*Sturnella magna*) are largest in New England, and those of Minnesota and Illinois are even inferior to *var. mexicana* from Texas, and the eggs of the Crow Blackbird (*Quiscalus quiscula*) and its *var. aeneus*, show a like variation. Orchard Orioles' eggs from Rhode Island and those from Texas average the same. Michigan specimens are a little smaller.

With the *Fringillidæ* the general rule holds uniformly good, and two examples will be sufficient. Eggs of the Song Sparrow (*Melospiza fasciata*) in Massachusetts are much smaller than those of *var. guttata* of Oregon, and those of the Chipping Sparrow (*Spizella domestica*) increase from Massachusetts to Vermont and Minnesota, reaching the maximum in eggs of *var. arizonæ* of California.

Although my data for the swallows is inextensive, the little there is conforms to the general rule, as in the case of the Cliff Swallow (*Petrochelidon lunifrons*), in which the eggs from Illinois average .70 and New England specimens, .66.

Of the *Lanidæ* the eggs of *ludovicianus* proper from Florida measure about .80 of an inch, while those of *var. excubitorides* taken in California measure .86.

Specimens of eggs of the Blue-headed Vireo (*Vireo solitarius*) average .66 in Massachusetts,

are a trifle smaller in the Colorado variety, and reach the greatest size in *var. cassini* of Oregon.

Of the *Sylviolidæ*, two examples are all that I am able to give. In specimens of the eggs of the Chestnut-sided Warbler from Maine and Massachusetts, there is a difference in size in favor of the former state, while in the *Icterinæ*, eggs of *I. virens* from Rhode Island are larger than those from Pennsylvania and eggs of the *var. longicauda* from Arizona are smaller.

One example of the genus *Harporhynchus*, that of *H. rufus*, the most widely distributed species, is all that is available at the present time. Minnesota specimens are largest, measuring .91, while eggs from Rhode Island average .90, and those of the *var. longirostris* from Texas measure but .86.

Among wrens, the common *ædon* is the only example that I have obtained. Eggs of the House Wren (*Troglodytes ædon*) from Iowa, Illinois and Rhode Island present a uniform average measurement of .58. Those of *var. parkmani* of California are a trifle larger.

Of the *Paridæ*, the eggs of the Chickadee (*Parus atricapillus*) in Rhode Island and the *var. occidentalis* of Oregon present the same average, but eggs of the type from Illinois are somewhat superior in size.

In the *Poliopitidæ* the average measurement of eggs of *cærulea* in New Jersey and *var. plumbea* of Arizona are alike, but eggs of the type from Texas and Mississippi are smaller.

The thrush family is represented by two species of as many genera, the *Hylochichlidæ* and *Merulidæ*. The former is represented by *ustulata* and its *var. swainsoni*, specimens of the type averaging .78 of an inch in Oregon, and .74 in California. Eggs from Grand Manan average the same as the latter.

In the genus *Merula*, eggs of the Robin average alike in Minnesota and Michigan, while the western variety from California are larger.

Thus we find that a series of measurements of the eggs of twenty-seven species of birds show a decided and generally uniform variation in size, becoming larger in an advance from south to north, and from east to west.

Reviewing first the variation of northern and southern specimens, we find that the rule of variation, as established by Baird, is much more uniform among birds that are least developed, say birds as low as the raptorial and lower in the scale, and is also frequent among a few *non oscines* which are more highly developed, but in birds highly organized, exceptions are much more frequent.

The same generalization with a few more variations is equally applicable to specimens from east to west, eggs becoming larger to the westward, with the exception of that part occupied by the arid region of Arizona and the western part of New Mexico and Colorado, and among highly developed birds—the narrow belt of land on the Pacific coast and lying between it and the nearly parallel Coast Range.

Those familiar with the topographical map of the United States will remember that there is a gradual increase of altitude in an advance from the Appalachian Mountains which form the western boundary of the Atlantic Coast district to the western base of the Rocky Mountains, while the territory situated between the latter and the Coast Range, forms a vast plateau, and is the highest table-land in North America, and the narrow belt west of the Coast Range is comparatively on the sea level.

Thus we find that with the exception of that part of the Central Plateau in the immediate vicinity of Arizona, the increase in altitude corresponds to the increase in size of eggs as shown by the data already given. Having seen the effect of latitude and altitude upon the size of eggs, let us see what plausible explanation can be offered as the cause of such effect.

We know that an increase in latitude and altitude cause an inverse change in temperature. We also have found that eggs increase in size in proportion to latitude or its equivalent, and we know that the same phenomenon is noticeable in the birds themselves, and the coincidence of these facts would seem to be a signification of some relation between them.

As it is impossible that the size of a bird or egg has any effect from climate or temperature we infer that if a co-relation exists, size must be modifiable by latitude or the effect of latitude upon climate.

According to the theory of evolution the laws of natural selection and individual variation would be important factors in the solution of the question.

It is believed that at the advent of the last Glacial period, birds in common with other animals were obliged to retreat to the south and the migrants, added to the number already inhabiting the regions free from ice, caused an overstocking of that territory, to such extent that a competition fierce enough to tax every energy to its uttermost to find subsistence was the result.

Under such circumstances the receding of the ice was rapidly followed up by a few intent upon reaching a place free from competition,

and these pioneers, being joined by others of their kind, again pushed on in the advance. As they returned to the north, the difference in climate, having less effect upon the more robust individuals, the point in their favor placed them above their associates in the struggle for existence, and the beneficial change was kept up and extended by natural selection, so that in time the superiority of the individual became a trait common to all.

If such variation will occur among birds when sufficient cause is given, it is equally probable that the eggs of birds may be influenced in the same way.

We will suppose that when the videttes of the force advancing northward reached a higher latitude than the mass of its kind, it chanced to produce eggs a little larger than the average. As the axiom "Large bodies cool more slowly than those of smaller size" can not be disproved, it will at once be seen that such eggs would have been better able to withstand the greater vicissitudes of climate consequent to the increase of latitude, or in other words the case of individual variation resulted favorably to the egg, and the chick when hatched might have been more developed in its several parts than others, and finally become a larger bird than the average. A larger and better organized bird could have withstood more hardships, but it is very probable that it would have required more food than a smaller one, and in the regions quitted, this would have been a serious drawback, but in its new environment, competition would have been less severe and so allowed a greater food supply. Thus the variation in the egg would have been a permanent benefit, and only *permanent* benefits are fostered by natural selection.

It is to be remembered that environment determines the worth of variations, and had a change like the above occurred in the crowded district it would have been speedily blotted out, as such variation in an egg would not have been of any particular advantage in a warm climate, and the increased amount of food required by the bird would have been extremely difficult to obtain.

The measurements show an increase of size in unison to that of latitude, as before stated, and my conclusion is that the two facts must be related as I have described, the apparent contradictory evidence in the smallness of New Mexican and Arizonian eggs, being due to the extreme heat of summer in that locality which counterbalances, to a measure, the effects of altitude.

Harry Gordon White.

A Very Peculiar Bird.

A very strange bird, one whose peculiarity in never building a nest of its own is known to all oölogists, is the Cowbird, or as otherwise known to many, the Cow Bunting, Cowpen bird and Cow Blackbird, and scientifically as *Molothrus ater* (Bodd.) Gray. Although a familiar bird to almost all of those who study the avian fauna of North America, and classed as a common species in nearly all portions of the United States, it is, nevertheless, but little understood by students of bird life, and those devoted to the elucidation of the enigmas which arise so often to startle and perplex us. Thinking a few remarks on this familiar species would not come amiss, the writer offers the present article, trusting at least to cause some to investigate and give extra information on the peculiarities of the breeding habits of this interesting and apparently unnatural bird.

Several years ago my attention was drawn to the fact that the number of eggs laid by the Cow Bunting was not given in any work that I had met with, and further, that many habits peculiar to the species were not understood, or at least but partially comprehended. The following queries ultimately suggested themselves after considerable thought, namely: 1. What is the number of eggs laid by the Cowbird in a clutch? 2. Does the Cowbird use judgment in depositing eggs as to number, in accordance to size of nest invaded or the number of eggs to be laid by the rightful owner? 3. Does the Cowbird usually select nests that already contain egg or eggs of the owner, and when empty nests are selected is it done because the Cowbird is pressed for time and cannot find another nest? 4. Is the Cowbird polygamous? 5. Is the Cowbird as secret about invading the nest of another bird as generally supposed? 6. Does the Cowbird ever assume the duties of a parent by incubating its hopes of future posterity, or, later, supply its own offspring with food? 7. What is the period of incubation, if we can so express it, when represented by the devotion of the rightful owner of the nest to the alien eggs? Lastly will the imposed on owner of the nest hatch several alien eggs when there are none of her own in the nest?

In Michigan where the writer's observations have been mainly made during the last twenty years, the Cowbird has appeared on an average March 29th, the earliest arrival being March 16th, and the latest April 9th. About May 10th the birds are prepared to drop eggs into almost any inviting nest. Previous to that

date fully constructed nests of the right species are rather scarce.

From May 15th, when the smaller species are prepared for household duties, to July 1st, the Cow Bunting is ever on the *qui vive* to surprise owners of homes with the unwelcome donations. At the time of arrival only males are seen, and it is fair to say that the females arrive about four days later. On pleasant, sunshiny days both sexes may be seen sitting in lazy contentment along fences or in the trees, the males endeavoring to effect their unmusical *splreele*, uttered in a drawling manner. At this time the feathers are ruffled up about the neck, the bird appearing much like the Red-wing Blackbird in his actions. There is also a call note, uttered by both sexes sounding like *squeak*. The species is eminently gregarious from the time it arrives until it departs, the two sexes appearing to be about equal in numbers excepting during the active season of laying when the females are undoubtedly occupied hunting around for asylums wherein to deposit their eggs. At this time the males predominate in numbers and may be easily identified, as their glossy coats form a marked contrast to the dull brown of their companion's apparel. In late May and June the males appear to outrank the females in about the proportion of three to two. Later in the season when the young are associated with the adults and after moulting is over the sombre coats prevail.

The Cowbirds are gregarious during the entire season, but are more inclined to congregate during spring and after moulting, often associating with large flocks of the Rusty Grackles, and occasionally with the common Crow, Blackbirds and Redwings during autumn. They usually fly in flocks of five to eight during breeding season, but may be found in flocks of twenty to fifty later in the season.

As to the number of eggs laid by this species I am at a loss to state with certainty, but will give a few observations that approach accuracy. One day I secured a female alive, and as she was only injured slightly in the wing I determined to save her in order to examine her habits. The date of capture was May 27th, and as she fed greedily on the mixed insect and other foods that were offered the following day, there was but little doubt but the captive would survive. On May 29th an egg with the characteristic form and markings was laid in the cage, quite forty hours after she became a prisoner. From this I was sat-

isfied that this egg was the first of the clutch, a view which was strengthened by the discovery of a second egg just twenty-eight hours after the first one was seen. The second egg was deposited like the first upon the floor of the cage, but quite at the other end of her prison. A nest of the catbird containing three eggs of that species, was now placed upon the perch and fastened to the wires, and the third day of deposition was anxiously looked for, but no addition was seen up to my retiring hour, thirty-two hours after the second one appeared; but on arising early the next morning, the first of June, the third egg was found close to the second. On this day the bird refused to eat, and, as bird fanciers express it, looked dumpish. The morning of June 2d I found the remains of a once perfect egg. It appeared to have fallen and been broken. This day the bird died, as I felt convinced, of blood poisoning, as the wing where it joined the body was in a state of gangrene. Dissection proved that no more eggs were in a state of formation for this clutch. All of the eggs were laid within a space of eighty-five hours. That is from the time the first egg was deposited to the date of the last addition. Many times have I met with nests containing four eggs of the Cowbird besides the eggs of the rightful owner of the nest, and have been impressed with the idea that the four had been laid by the same bird, so symmetrically exact was the apparent clutch, both in form, size and markings. Only once have I met with five eggs of the Cowbird in one nest, and they were so dissimilar that it was evident at a glance that they were laid by different Cow Buntings.

In every instance that I have recorded in my note-book, and they are numerous, I have had it impressed upon me that the Cowbird is influenced by the size of the nest in laying a large number of eggs in one nest, rather than by the number of eggs to be laid by the legitimate owner. Of course what we term instinct in the lower animals asserts itself in some way in these cases, and the Cowbirds judge as to the ability of the contemplated foster parents to provide for the unwelcome nurslings, by the size of the nest. Once I met with a Bluebird's nest in a very large excavation, containing five blue eggs and four speckled ones, and in this case the speckled eggs were evidently laid by the same female, judging from size and markings. This was in early May, when but few birds are nesting that are imposed on by these parasites. It is not common to find Bluebirds suffering from the persecu-

tions of *Molothrus* in Michigan, and rare to find over two alien eggs in a nest of *Sialia*.

I am satisfied that the Cowbird is occasionally mistaken in laying more than is intended through not identifying the eggs of its own species. This occurs often in the Chewink's case, and that too at a time when there is room for all. It is not uncommon to find four eggs of this sycophant in a nest containing three or four Chewink's eggs, and some of the latter would almost exactly resemble some of the former. In the case of the vireos and small warblers it is unusual to find more than one or two Cowbird's eggs in a nest, although a Red-eyed Vireo's nest containing four of the interlopers is now before me.

Third, the subject of this sketch usually selects nests containing one or more eggs of the original architects, although all have met with numerous instances where one, two and three eggs of the Cowbird occupied a nest of some disconsolate pair which had been scared away by the too rapidly accumulating testimonials without attempting to assert their rights in any way. It is my opinion that in the face of so great a fraud the swindled erstwhile householders invariably leave their claim and seek other quarters. The largest number of Cowbird's eggs that I have yet found occupying one nest in which the owner had not yet laid was four. The nest was that of the Golden-crowned Thrush. Strange to say, although the female was shot near at hand, there were no legitimate eggs lying outside of the nest, as is often the case, particularly with the Chewink and some of the larger birds. More singular still is the fact that the eggs which were uniform in size, etc., were incubated equally to about the fifth or sixth day.

Is the Cowbird polygamous? We frequently see it described so, but as yet there is no proof positive. In my opinion it may with equal propriety be called polyandrus. It is, however, reasonable to suppose that the birds pair at the beginning of the season, and remain faithful to each other at least during spring and summer.

Are the birds of this species as secret in their invasions of other birds' nests as is generally considered? From actions observed by me, I am satisfied that the legitimate owner of the house is often driven from the nest by the male Cowbird to allow the female an opportunity to occupy the same, but in the large majority of cases the alien eggs are surreptitiously deposited during absence of rightful owner.

As to the Cowbird occupying the nest in order to continue the duties of incubation, temporarily abandoned by the owner of the nest while in search of food, I cannot positively assert, but once in an instance where the mother bird was killed by mistake, a female Cowbird was observed to leave the nest the following day as if she were sitting. The eggs were incubated quite a week, and it was certain that she was not there for the purpose of laying, for as yet I have never observed a fresh egg of the Cowbird in a nest where the other eggs were incubated, and very rarely have I seen an addled Cowbird's egg in a nest occupied by other eggs. I feel certain that the parent Cowbirds do at least keep the nests occupied by their eggs under surveillance, and this espionage may extend to the guardianship of the fledgling in and out of its foster parent's home. It is not claimed that the Cow Bunting is a brave bird, nor do I wish to elevate it in the estimation of my readers, but the natural instinct of protection of its young, exhibited to a marked degree by many species and more or less prominent as a trait in nearly all, is shown by the Cowbird in at least one case to my knowledge. I refer to an instance where I saw a Bluejay on the point of despoiling the nest of a Vireo, driven away by a pair of Cowbirds in a most valiant manner. On going to the nest a large overgrown Cowbird was found occupying the largest share of the structure, while a poor little Red-eyed Vireo occupied a small space at the bottom, and beneath his big foster brother.

It would be a very interesting fact could it be demonstrated by the placing in confinement of an adult Cowbird with its own offspring, to watch the care exhibited by the natural parent feeding its own young.

However, I have never taken a female whose abdomen and breast indicated that incubation had been followed, neither have I seen an old Cowbird feeding young.

The period of incubation as observed by me several times is between eleven and twelve days. A great many times that I attempted to accurately determine this period my prospects have been upset from several untoward events. The owner of the nest often left it, either from my too frequent presence or the persecution of the imposter, but in two instances the period was quite accurately determined. From the fact that the owner only begins sitting after its complement was laid, merely covering the eggs at night or perhaps in inclement weather before that time, it

shows that even the most careful calculations may be incorrect. This occurs, perhaps, from the fact that the alien egg being so much larger than the legitimate ones, or that it almost always rolls into the centre from its superior weight. In either case it comes into more direct contact with the breast of the hovering bird.

Furthermore, the Cowbird's eggs are always laid soon after the first egg is observed by the parasite, and often before. In many complete sets of Yellow Warblers, Vireos, and Redstarts, where eggs of the sycophant also occupied the nest, the following was observed on removing the contents: although one, two, or all of the legitimate eggs were fresh, the Cowbird's egg or eggs were almost invariably slightly advanced in incubation. How can this be accounted for? First, the owner may as I suggested, touch the larger eggs when covering all at night. It is quite possible, however, that the anxious mother or father Cow Bunting may incubate when the chance offers, at the time when eggs are first laid. From two well studied cases I have fairly concluded that the period of incubation, as observed in the sitting of the Red-eyed Vireo and Redstart on the eggs of *molothrus*, is between eleven and twelve days in duration. I cannot say exactly, as the young were in both cases duly hatched during the night, being there in the morning, and not a pip in the eggs the night before.

I feel quite safe in saying that the old Cow Buntings in some way influence the incubation in favor of their own thick-shelled eggs in all cases where they are laid in the nests of small birds.

Will an imposed-on bird sit on a clutch composed entirely of Cowbird's eggs? I think in no case, but I know of two instances, both in the case of Chewinks, where the rightful eggs were rolled or thrown from the nest in an advanced stage of incubation, either by the Cow Bunting or in error by the aggrieved Chewinks, where the young Cowbirds were ultimately hatched in all security.

Cases are common where suffering birds attempt to build over the offending egg or eggs, often with success. The Yellow Warbler is especially artistic and energetic in its efforts to circumvent the dreaded incubus, and will frequently sacrifice one of its own eggs, or more rarely two, in the effort to inhume the detested aliens forced upon them. It is not rare to find these double-storied nests, and I judge that there are many of them to-day in collections, of which the owners are ignorant.

My attention was first brought to a nest of this nature by accidentally crushing an enclosed egg in a nest, and observing a characteristic and not unfamiliar smell.

The Yellow Warbler and Red-eyed Vireo have a decided peculiarity in nearly always leaving their nests alone and unprotected usually quite a time before laying their eggs. Perhaps they are waiting to find out what kind of a neighborhood they are summering in, and are endeavoring to satisfy themselves as to the desirability of their chosen site. Be that as it may, they often make the severe mistake of too great caution, and encounter difficulties from which the Vireo cannot escape, and our little Summer Yellow Bird only by the use of skill and great pains. For the Cowbird, that villainous plebeian of most immoral social views, is ever on the alert to discover a nest of the absent Warbler.

A nest now before me finely illustrates the determination of the warbler to succeed in rearing an unmixed family. This nest is a three-storied one, one where the birds twice covered the eggs of the intruders. During the early part of the construction of the nest a foolish Cowbird, anticipating too early, laid an egg which was soon covered by the warblers ere completion. Two eggs were laid by the happy birds when they were again imposed on by the interpoler. This did not discourage them but with determination, possibly borne of former years' experience, they doomed their own two eggs in order to be rid of the Cowbird's and buried them all, building still another story, and making a remarkably high structure. They again essayed their work of love, and when the nest fell into my hands there were two eggs in the upper story or nest proper well advanced in incubation.

In my own experience the following named species of birds are imposed upon in Michigan, namely:* Wood Thrush, 2; Bluebird, 4; Yellow Warbler, 3; Chestnut-sided Warbler, 2; Maryland Yellow-throat, 2; Golden-winged Warbler, 1; Redstart, 2; Hooded Warbler, 1; Golden-crowned Thrush, 4; Scarlet Tanager, 2; Blue-gray Gnatcatcher, 1; Chipping Sparrow, 1; Song Sparrow, 3; Rose-breasted Grosbeak, 2; Chewink, 5; Indigo Bird, 1; Wood Pewee, 1; Traill's Flycatcher, 1; Acadian Flycatcher, 1. I have also heard on good authority of the Least Flycatcher, Cedar Bird, and Small-billed Water Thrush in Southern Michigan.

*The numbers at the right of each name indicate the largest number of Cowbird's eggs I ever saw in a nest of the species.

The eggs of this species differ greatly in size, but contrary to what might be a nice theory broached by a friend of mine, namely, "that the small eggs were laid in the small nests and the big ones alongside of large eggs," I have found it to be in no way regulated by any principle of the kind.

The largest egg which I have discovered of this species was taken from a nest of the Red-eyed Vireo. The dimensions average in one hundred and thirteen eggs in my collection .84 x .66. The largest egg that I have seen was .95 x .69, and the smallest, now before me, almost globular, .67 x .60. The markings differ as widely as the dimensions, so much so that it is often with difficulty that they are distinguished from Song Sparrows, Chewinks and Golden-crowned Thrushes. In nearly all the eggs the ground color is a dirty white, covered more or less thickly with fine dots, generally thicker toward the butt of the egg and often forming a ring. The dots or blotches are usually of a light brown or reddish.

Occasional eggs have the markings a faint bluish or nearly black. Often the eggs are almost white, having hardly any markings, and again are so thickly marked with fine dots, generally brown, that the ground color is much obscured. Sometimes the whole surface is blotched with large spots of various colors on different eggs. The egg more nearly resembles the eggs of the miserable, detestable, but prolific English Sparrow than that of any American bird, I think.

What the reasons are that the egg of a bird that does not build a nest of its own should be colored and marked as this bird's is, is more than I would undertake to prove, but many of my readers may have ideas that may throw light on the subject.

Coues, in his *Birds of the Northwest*, page 180, gives an excellent history of this species, and refers to what he supposes may have caused the peculiarities in the habits of the Cowbird.

Morris Gibbs.

Kalamazoo, Mich.

One Day's Egging.

On May 2, 1889, my brother and myself concluded to make a round trip and take a number of nests we thought ought to be ready by that time; so armed with guns, irons, reed, line and grappling hooks we started forth early in the morning, and proceeded to a tract of pines half a mile from home. Passing by one nest of *Dendroica dominica* as not yet ready,

we proceeded to the other end of the pines, and my brother put on the irons and proceeded to collect a couple of sets of the Pine Warbler (*D. pinus*) which awaited us there. The first nest was only twenty feet high, and seemed easy to take, but the nest was firmly bound to the limb and the reed only tore out the lining of the nest, which however proved quite sufficient to convey four eggs safely to hand. The other nest twenty-five feet high furnished an incubated set of three.

Having no further business in that locality we packed up our eggs, and leaving the pines went on to a tract of mixed woods, and passing through them came to an old cow pasture near a house. Here my brother went up a dead pine to look for a Brown-headed Nuthatch's (*Sitta pusilla*) nest which wasn't there, while I examined a hole in an apple tree which some Tufted Tits (*Lophophanes bicolor*) had been building in. Here we were more successful as six fresh eggs rewarded our trouble. The bird flew off the nest right away when I started up the tree and presently came back with a huge bunch of hog bristles to cover the eggs with. The hole was only seven feet high and was lined with hog bristles, green moss, and root strips.

A further tramp of about a mile brought us to a small tract of pines, and a forty-two feet climb gave my brother a third set of Pine Warbler's consisting once more of four eggs.

Having been all the morning on the uplands we now turned into the creek valley to come back, and soon came to a nest of the Blue-gray Gnatcatcher (*Polioptila caerulea*) in a dead pine. The nest was twelve feet high and not reachable from the trunk of the tree, so the grappling hooks were tied on the reed, and after considerable manipulation the set of four eggs was landed in safety. The female did not appear during all the performances, but the male showed considerable anxiety.

After this we started up the creek, wading the various channels, often knee deep and more, in water or worse in mud or sand, till we came to a dead willow stub which was used by a pair of Tufted Tits. The stub was rotten and the hole fifteen feet up, so we tied the shaky concern to another one a trifle less shaky, and also propped it up with sticks of wood and stuffed the hole up with cotton. My brother then started up the stub, and after several endeavors got the nest and all that was therein and came down again. (I forgot to say we broke the top of the stub off at the hole). This gave us seven fresh eggs to pack up just as the fe-

male came up with a bunch of cotton to see what was the matter.

Right at this point we separated, my brother keeping on up the creek while I waded across and went up a branch to inspect a nest of Louisiana Water Thrush (*Seiurus motacilla*). On approaching it the female came from her nest, placed under the bank some three feet above the water, and flew off in alarm. Five fresh eggs were my reward this time. Packing them up I tramped across a neighboring field to a tract of tall pines and then sat down and waited for my brother, amusing myself by knocking a Flying Squirrel out of his hole in the meanwhile. On my brother joining me I showed him a Pine Warbler's nest seventy feet high in a tall pine.

Four incubated eggs rewarded his climb and we then rested a while. Once more crossing the creek I walked up a small sweet gum and got a set of four Brown-headed Nuthatch from a hole twelve feet high in the dead top. The nest was composed chiefly of pine seed leaves and a few bark strips, and the Nuthatches showed more anxiety than usual.

As it was now about three o'clock we turned our faces homeward by way of the creek bottom, and impelled by hunger and weariness soon reached our destination, calling on a Blue-gray Gnatcatcher by the way, but as she had only two eggs we did not molest her, and that finished our day's work. We had taken forty-one eggs and three birds, the latter a ♂ Prairie Warbler (*D. discolor*), a House Wren (*T. ædon*) and a Water Thrush (Short-billed *S. nœvius*).

Just as I had nearly finished my share of the day's work, a boy came along with the announcement that he found the nest of a very remarkable bird which I couldn't make head or tail of from his description, so as I had a little leisure time I went with him to look at it, and was introduced to a Yellow-billed Cuckoo without a tail sitting on one egg in a stick nest in a brier patch. The nest was six feet high and lined with roots. Some days later she laid a second egg, and on my final visit I found both eggs broken in the nest. I was rather surprised to see a nest so early in the year, especially as I had not seen or heard a single Cuckoo previously this spring.

C. S. Brimley.

Raleigh, N. C.

Begin the New Year by sending in your subscription to the O. & O. The price, \$1.00 per year, is so low that it is hardly worth mentioning.

A Day's Egging in an Illinois Swamp.

On June 5, 1887, a friend and myself went to a swamp near Lacon, Ill., which is a succession of lakes from one to two miles long by about six to eight hundred yards wide, and with marshy ridges of land. The whole covers a space of nearly ten square miles, and is interspersed with small and shallow ponds grown up with weeds and rushes, patches of large timber and small loamy creeks—in fact a paradise for water and other birds. In this swamp in the early spring I have found nests of the Bald Eagle (*Haliaeetus leucocephalus*), Red-Tailed Hawk (*Buteo borealis*), Cooper's Hawk (*Accipiter cooperi*), Long-eared Owl (*Asio wilsonianus*), Barred Owl (*Syrnium nebulosum*), and Great Horned Owl (*Bubo virginianus*). There is also a small heronry near the upper end, and Swamp Warblers are very plentiful, as are also the Swallows and Vireos.

We entered by a small creek full of dead stumps, and had hardly proceeded up it a hundred yards when the first find of the day was made, and a very curious one it was too. A stump had been broken off above the water leaving quite a cavity in one side, and a Kingbird (*Tyrannus tyrannus*) had taken possession of this and made its nest and laid three eggs. There she was down in a hole just as much at home apparently as though she had been a Woodpecker or an Owl. We thought this was a rather queer place for a Kingbird to nest and passed on leaving her alone.

We now pushed up the creek, both sides of which were covered with rushes, to where the creek came out of the swamp, and there a sight met our eyes which would make a bird lover's heart glad, for spread out before us was a level expanse of flags, rushes, etc., about a mile in diameter, and the water was from ten inches to three feet deep, with here and there a small sheet of water of about an acre in extent nearly free from reeds or vegetation of any kind. The whole landscape seemed literally alive with birds, Long-billed Marsh Wrens (*Cistothorus palustris*), Yellow-headed Blackbirds (*Xanthocephalus xanthocephalus*), Red-winged Blackbirds (*Agelaius phoeniceus*), Great Blue Herons (*Ardea herodias*), American Bitterns (*Botaurus lentiginosus*), Least Bitterns (*Botaurus exilis*), Coots (*Fulica americana*), Florida Gallinules (*Gallinula galeata*), Pied-billed Grebes (*Podilymbus podiceps*), and Ducks of several kinds were to be seen in a few moments' observation from the boat. We pushed through the reeds to a large patch of bulrushes

and then stuck, as the vegetation was too much for us.

We had on rubber boots that came up to our knees, but the water was about two and a half feet deep. I was carefully testing its depth when I got in over the top of my boots, so I waded on, and had hardly proceeded twenty feet from the boat when I saw a suspicious looking bunch of reeds, and on examining it closer I found that it contained a set of Florida Gallinule's eggs. My friend was opposed to getting wet, but when he saw those he lost no time in tumbling out of the boat also. He soon found a Coot's nest with six eggs, and a set of three eggs of the Black Tern (*Hydrochelidon nigra surinamensis*) next fell to my lot. We both pushed forward and I succeeded in finding numerous sets of eggs of Coots, Gallinules, Black Terns, Least Bitterns, and Long-billed Marsh Wrens' eggs, but nothing rare.

At noon we come back to the boat and found we had collected six sets of eggs of Florida Gallinule (four sets of eight and two sets of six); seven sets of Coot (two of seven and five of six); three sets of Least Bittern (one of five and three of four), and two sets of Long-billed Marsh Wren of seven, and one of five.

In the afternoon we went deeper into the swamp, got lost, and were rained on by the hardest rain I ever saw; and we had nothing to cover us but the reeds—a very poor shelter.

Although we made a great hunt that afternoon we could find nothing new. We would scare an American Bittern, and on going to the place from which it arose in the expectation of finding its nest we only met with disappointment. Neither could we find a single Grebe's nest. I also wanted particularly to find the nest of the Yellow-headed Blackbird, but signally failed, for although there were plenty of birds we could not find any of their eggs.

The Coots seemed to be more partial to the places where the reeds were very tall and dense, while the Gallinules would build in the more open spaces; sometimes they were found where you could see their nests for seventy-five yards.

The nests of the Least Bitterns were all made of sticks, and placed amongst the densest of the reeds rarely more than a foot above the water. Their nests were in all cases found well out in the lake and none were near the margin.

We found the usual number of empty nests of the Long-billed Marsh Wren and only about one in four contained eggs.

Lacon, Ill.

R. M. Barnes.

Nesting of the Florida Cormorant.

It was with much interest I read Mr. C. J. Pennock's article on this subject in O. & O. October number. As my experience is somewhat different from his it may perhaps be of interest.

A small colony of Cormorants have their nesting places on an island in the Myakka River, Florida. This place I visited on June 8th, 1889. I found the colony consisted of a dozen nests, which were placed in small mangrove bushes. The nests were rather loosely built of dead twigs without any lining. Several of the nests had no eggs; these I found had been collected by another collector three days before my visit; he informed me that the eggs were heavily incubated.

Of the other nests three had young birds probably three or four days old, three had heavily incubated eggs, and in one (a set of three) incubation had just commenced, one egg being almost fresh.

The birds which had lost their eggs would I believe have laid a second set, but a colored plume hunter shot several and broke up the rookery. He informed me that two of those killed had eggs in them. *T. Tomasson.*

Punta Gorda, Fla.

Nesting of the Pied-billed Grebe.

I noticed that in the September, 1889, O. & O. Mr. Wm. G. Smith had an article on the nesting of the Pied-billed Grebe (*Podilymbus podiceps*), in which he gave it as his opinion that this Grebe incubates its eggs by the warmth of its own body rather than allowing them to hatch by the heat generated by the decaying vegetation which usually composes the nest.

We should all feel indebted to Mr. Smith for this new information, as it has hitherto been supposed that the Grebe invariably relied on the decaying vegetation to furnish the heat necessary to hatch the eggs.

At Minneapolis, Minn., I had ample opportunities to observe the nesting habits of this bird, and in that locality, as far as my experience went, I found that the birds never sat on the eggs in the daytime. Whether or not they do so in the night I am unable to say.

I have examined hundreds of their nests, and in every case where the set was complete the eggs were covered with the vegetable matter. Incomplete sets of three, four or five were generally found uncovered. This is a good point for the decaying theory it seems to

me, as the birds did not want the eggs to begin to incubate until the full complement had been deposited.

I have also noticed that the deeper the eggs are imbedded in the refuse matter the more incubated they are, a fresh set having just a thin layer over them. I cannot account for this unless the layer first put on loses its heat after a time, and more is heaped on, for if we dig into it we find that the deeper we go the warmer it gets; and perhaps the Grebe realizes that it is best to be certain that her already incubated eggs do not become cold. But this is only theory and will not be tolerated, facts are what are wanted.

I have never seen a Grebe on her nest although I have often come suddenly and noiselessly upon it. At other times I have been on the edges of swamps where the weeds were thin, and I could see three or four nests at a time, and although the birds were sometimes around they were never on or very near them.

I think it will be safe to say that the Grebe does not sit on her eggs in that locality, but relies on the decaying matter to hatch them. Let us hear from others on the subject.

Geo. G. Cantwell.

Lake Mills, Wis.

Nesting Site of the Brown-headed Nuthatch.

In the October number of the O. & O. Mr. Brimley records a majority of nests of this species being found in stumps, etc., standing in or close to water. I have collected a number of sets of the eggs of this species, and have not found such to be the case with those I found.

My collecting ground was Southwestern Georgia—Thomas County. The country is heavily wooded, and when cleared land occurs, nearly every such field contains stumps and dead stubs from ten feet to twenty-five feet in height, and it is in such situations that I found a large majority of my nests, and apparently without regard to the nearness of water. In hunting for the nests I would look out for a cleared field bordering a wood, and containing dead timber, then, by skirting the edge of the timber, I rarely missed locating a pair of birds, and the site was generally within fifty or one hundred feet of the woods, occasionally close to the edge, and four nests were found in the woods, but two of these were close to a travelled roadway. The wood was quite open.

I found these nests in stubs that were standing in water, open, shallow ponds, one of

which was in a woods, but within fifty feet of the edge. One nest was in a telegraph pole along the railroad and in the town, close to a large hotel where hundreds of people and teams passed daily. Several were found along the roadside while driving. None were over thirty feet from the ground, and probably three-fourths were under ten feet up. I seldom found more than one nest in a field, but on two occasions I found two within one hundred yards of each other.

Five and six eggs were generally found when sets were completed. In one case four eggs were found with incubation far advanced, and in two instances I took sets of seven eggs.

One nest that had been located and watched for several days was visited after sunset and six eggs secured. On rapping on the stub three adult birds flew out, and I wondered how the sexes were divided in such a happy family.

G. J. Pennock.

Kennett Square, Pa.

Answer to a Sarcastic Inquiry.

In the "O. & O." of November last, Dr. W. S. Strode of Bernadotte, Ill., insinuates in a very gentlemanly way that I have trifled with the truth and invites me to let the public, and himself, into certain "difficult climbs" during an oölogical trip in Texas which I mentioned in my "well written account" of said trip in the "O. & O." of June, 1889.

My friend the Dr. goes on to say that he read my poor effort "with much interest" and draws my attention to certain parts which "particularly struck my (his) admiration."

First of all I would like to insinuate in my turn, in the most polite manner possible, to my friend the Dr., that only *bright* men can successfully ridicule.

I did not say that Mr. Gillin climbed a "Sycamore" six feet in diameter, etc., "but I did say that he climbed a *Cottonwood* of that dimension. Anyone who has seen a Cottonwood knows that its bark is rough with very deep grooves in it. In all his "tremendous climbs" Mr. G. simply used climbing irons, and inserting his fingers in the grooves in the bark, by his great strength and suppleness worked his way up some of the largest trees I have ever seen in my life.

All his climbs were made in the presence of two men besides myself, two men who are well known to Mr. J. Parker Norris of the "O. & O.,"

and they were astounded at the feats accomplished by Mr. Gillin.

The last Cottonwood he went up, although comparatively speaking a short climb, was the most difficult of all. As soon as he put his spurs in the bark, it gave way like soft earth, and even crumbled away beneath his hands. Once or twice he got up as far as five or six feet, hoping to reach the firm bark above, but only to fall back again. Then, as I said in my "well written account," he climbed to the top of a tree near by, and connecting it with the big one by a rope, climbed over on the rope, fifteen feet or more, and at a distance of forty-five feet from the ground. The measurements I gave are not guess-work, but the results of measuring the two or more balls of cord Mr. G. used in lowering from the nest the tin box containing the eggs.

What would my friend the Dr. call me if I were to tell him that I saw Mr. Gillin climb a Cypress (not a "Sycamore") fifteen feet in diameter, by holding on to the knots and irregularities in the bark, and with his spurs? I am afraid the Dr. would forget himself again.

But such is a fact. Such trees are not uncommon in the river-bottoms of Texas, and this one a man had lived in for ten years.

But then I suppose my friend the Dr. would have run up it like a squirrel, as he says he "has done some tall climbing." The Dr. seems to think that Mr. G. is "entitled to the belt as the prince of climbers," but Mr. Gillin authorizes me to say that he resigns in favor of the Dr.

I have not, in this short article, attempted to give a very minute description of how Mr. G. made his "difficult climbs" for why should I? Surely a few words will be enough to tell all I may know to a man of intelligence like unto that of my friend the Dr.

G. B. Benmers.

Albino Quail.

I have mounted three albino quails which are very handsome. There is said to be a whole covey of them, but I was unable to find any more than the above. Each bird has different markings. The markings are those of the Virginia quail; small spot on crown, spot on neck, part of rump, all the rest pure white except bills, of which the upper mandible is dark horn color and the lower white.

W. R. M. Tortat.

Atchison, Kan.

Nesting of the Arizona Hooded Oriole at Riverside, Cal.

As all the accounts of the nesting of the Arizona Hooded Oriole (*Icterus cucullatus nelsoni*) that I have seen are the results of observations in uncultivated regions, or where native vegetation abounds, I thought a few notes from this locality might be of interest.

Therefore, in this article I will give my experience with this bird in the settled district (under cultivation) of Riverside; extending as it does over an area of about twenty square miles, and as this land twenty years ago was a dry plain, no stately sycamore nor live oak stands to offer the usual favorite nesting place.

The past season of 1889 was a most favorable one for the study of this bird, as they were exceedingly abundant compared with previous years, even outnumbering our "common oriole," the *bullocki*, which before has been by far the more common of the two.

The Arizona Hooded Oriole arrives here about the middle of March, and probably commences building the first week in April, as my first nest contained a full set on April 23, and I heard of others being taken a few days before. The nesting extends through May and June, the latest date being July 1st, when a fresh set was brought me.

The nest is almost always instantly distinguished from that of the Bullock's by its light color—a peculiarity which is noticed in other localities, I believe—and it is invariably composed of fresh fibres of the Fan Palm (*Washingtonia filicera*), which has been planted here to a large extent. I have never seen the bulk of a nest made of anything else.

Many nests contain no lining whatever, and none are very elaborately finished. The majority merely have a small amount of a cottony substance (also obtained from the palm), and a few will contain two or three feathers, or a long horse-hair.

For the rearing of the first brood the nests are usually suspended in overhanging branches of the blue gum (*Eucalyptus globulus*), but it is a noticeable fact that the second nests are more commonly attached to the leaves of the palm tree. Why this is I do not know, unless they want to begin laying as soon as possible, and therefore build where material is most easily obtained.

When in the palms the nests are fastened directly to the under side of a large leaf, leaving a small opening on one, or more often on either side, for the bird to enter.

A nest composed of fresh, pale yellowish material, thus suspended is a beautiful contrast against the green leaf, and is the handsomest of anything in the way of nests that I have seen, especially when four nests are in one small palm not over fifteen feet high.

While the eucalyptus and palm are the two great favorite trees for nests, yet occasionally they build in others, chiefly the cottonwood, poplar, willow, and English walnut, and in one instance a nest was suspended in a climbing vine on a porch, but these are exceptional cases. As a rule they do not build high, the highest being not over twenty or twenty-five feet from the ground, while from six to fifteen feet is the usual height.

In size and shape the nests vary considerably but probably no more than those of other birds, and not so much as some. The general shape is cup-like, the greatest diameter being at the top. Purse-shaped nests are very rare. When placed in palms the tendency is to spread out more, often assuming the appearance of a hammock, and on several occasions I have known them so shallow that the eggs have rolled out during a strong breeze. A typical nest will measure about 2.75 x 3.25 inches, inside and outside diameter, and 3 x 3.50 inches in depth.

The eggs, in size, markings, and number laid, are the same as in other localities, and as they have been sufficiently described by others I will not take the time to do so, further than to state that of twenty-one full sets obtained last season, twelve contained four and nine three eggs each, and I know of only two instances where five were found.

Having parted with all my sets and having failed to retain full data of each set, I will be unable to make a list of them with date, description, etc., as I should like to have done, but will describe a series of fifteen nests now before me.

It is understood that all the following nests are composed of palm fibres, and when lined the material is stated.

I. Hung under palm leaf, lined with a little cotton. Cup-shaped. Diameter inside and out, 1.90 x 3.90; depth, inside and out, 2 x 3.50. A very clean, almost white nest.

II. Fastened to three twigs in overhanging branch of gum tree. Cotton lining. Cup-shaped. Diameter, 2 x 3; depth, 2.10 x 3.25.

III. In palm; no lining; resembles nests of sparrows in form. Diameter, 2 x 4.10; depth, 1.90 x 2.50.

IV. In palm; very little cotton lining.

Diameter, 2.50x4.00; depth, 2.75x3.75. A very peculiar nest with a long "tail" extending 13 inches from the pointed base.

V. A typical nest suspended in gum tree, lined with cotton and one long black horse hair. Diameter, 2.75 x 3.25; depth, 3 x 3.50.

VI. In palm; little cotton, hammock-shaped, higher on one side, inside diameters, 1.50 x 3; depth at lower edge, 1.25, at higher, 2.50.

VII. An old nest in gum tree, placed just above a still older one; no lining to speak of; diameter, 2 x 3; depth, 2.50 x 3.50.

It is very seldom that they lay in an old nest, even for the second brood.

VIII. A very fine nest suspended from horizontal limb of English walnut, 10 feet from ground; base rather broader than top; diameter, 3 x 3.50; depth, 3.25 x 3.75.

IX. In palm; small amount of cotton lining, a few long fibres hanging from bottom; diameter 2.30 x 3.40; depth, 2 x 3.

X. Hung in gum tree; little lining of cotton; more purse-shaped than any of the others; diameter, 2.75 x 3.80; depth, 3.50 x 3.75.

XI. In gum tree; cotton lining; cup-shaped; diameter, 2.10 x 3.50; depth, 2.50 x 3.

XII. Another nest with a long protuberance but on the side. In palm; cotton-lining, hammock-shaped, inside diameters, 2 x 3.50; whole diameter length-wise, including appendix, 9.50; depth, 2.75 x 3.

XIII. A very odd affair consisting of a large one-sided mass of fibres, 4.50 x 6 x 5 inches, with a depression up in one corner 2 inches in diameter by 2.25 in depth. Suspended by two ends to palm leaf; lining of cotton.

XIV. Hung in gum tree; well lined with cotton; cup-shaped. Diameter, 2.55 x 3.25; depth, 2 x 3.75.

XV. A very neat structure suspended at vertices of three small horizontal limbs of gum tree, and closely resembling in form and position a Vireo's nest. A little lining of cotton; diameter, 2.50 x 3; depth, 2.50 x 2.75.

Riverside, Cal.

Theo. D. Hurd.

Further Notes upon the Snowy Owl Taken at Gloucester, on Nov. 10.

Since the record of the capture of a Snowy Owl at Gloucester on Nov. 10, which appeared in the last number of the Ornithologist and Oologist, it has been reported that the specimen in question was an escaped bird which was captured in Iceland and brought to this port upon the halibut schooner, Arthur D. Story, Captain Joseph Ryan.

This schooner returned from the coast of Iceland about the middle of September, and if the report be authentic it is puzzling how so large a bird as the owl in question eluded observation for so long a time.

I have examined the specimen after it was mounted, and find the tail feathers are somewhat soiled and worn, as would be expected of a caged bird, but otherwise the plumage was in perfect condition.

The stomach contained the fur and parts of the skeleton of our common meadow mouse.

Harry Gordon White.

Notes on the Small Spotted Woodpeckers from the West.

While making notes for my description of the new sub-species of woodpecker (*Dryobates pubescens fumidus*) published in a former number of the O. & O.,* I had occasion to examine the literature upon this group, and fully intended to have indicated some of the (then considered) species that have been given by authors among these western woodpeckers.

1st. Malherbes describes a smaller, whiter form of *P. gairdnerii* from the coast region of Southern California.† This is, perhaps, admissible as a sub-species, but possibly not under this name.

2d. Cabanis indicates, under the name of *Dryobates homorus*,‡ a form to which I wish to call special attention as being directly opposite in most characteristics to the Smoky Woodpecker, that I have given. Of this he says (I give a translation of the original German), "Larger than the typical northern *D. gairdnerii*, with larger wedge-shaped spots on the upper wings and tertiaries, and with purer white beneath." The locality is given as California.

This is undoubtedly a perfectly valid sub-species, which occurs in the interior to the eastward of the range of the typical *D. p. gairdnerii* of Audubon, just as *D. p. fumidus* occurs to the westward.

This, the typical Gairdner's Woodpecker, is an intermediate between the two, both in habitat as well as, in a great measure, in coloration.

Of course Cabanis' name should now read *Dryobates pubescens homorus*.

C. J. Maynard.

* Vol. XIV, page 58.

† *Picus turati*, Mall., Mon. Pic., p. 125.

‡ *Dryobates homorus*, Cab., Mus., Hein., IV, 2, 1863, p. 65.

The J. P. N. Collection of Eggs of the Warblers.

NAME.	SETS.	NO. OF SETS.	NO. OF EGGS.
Black and White Warbler,	1-4, 9-5,	10	49
Prothonotary Warbler,	3-4, 18-5, 32-6, 15-7, 2-8,	70	415
Swainson's Warbler,	7-3, 2-4, 1-5,	10	34
Worm-eating Warbler,	1-5, 1-6,	2	11
Blue-winged Yellow Warbler,	1-3, 1-4, 2-5,	4	17
Golden-winged Warbler,	4-4, 3-5,	7	31
Nashville Warbler,	1-3, 4-4, 1-5,	6	24
Lutescent Warbler,	1-3, 1-4, 1-5,	3	12
Parula Warbler,	2-2, 8-3, 21-4, 8-5, 1-7,	40	159
Yellow Warbler,	11-3, 42-4, 25-5,	78	326
Black-throated Blue Warbler,	1-3,	1	3
Yellow-rumped Warbler,	3-3, 1-4, 2-5,	6	23
Audubon's Warbler,	2-4, 1-5,	3	13
Black and Yellow Warbler,	3-3, 53-4, 1-5,	57	226
Cerulean Warbler,	1-4, 1-5,	2	9
Chestnut-sided Warbler,	4-3, 11-4, 1-5,	16	61
Black-poll Warbler,	1-3, 7-4, 10-5,	18	89
Blackburnian Warbler,	1-4,	1	4
Yellow-throated Warbler,	1-3, 2-4,	3	11
Black-throated Gray Warbler,	1-4,	1	4
Golden-cheeked Warbler,	6-4,	6	24
Black-throated Green Warbler,	9-4,	9	36
Pine Warbler,	18-4, 2-5,	20	82
Prairie Warbler,	2-3, 10-4, 1-5,	13	51
Golden-crowned Thrush,	6-3, 11-4, 15-5,	32	187
Small-billed Water Thrush,	2-4,	2	8
Large-billed Water Thrush,	2-4, 9-5, 1-6,	12	59
Kentucky Warbler,	1-3, 4-4, 2-5,	7	29
Macgillivray's Warbler,	1-3,	1	3
Maryland Yellow-throat,	1-3, 17-4, 2-5,	20	81
Western Yellow-throat,	5-4, 1-5,	6	25
Yellow-breasted Chat,	1-2, 22-3, 67-4, 1-5,	93	341
Long-tailed Chat,	1-3, 5-4,	6	23
Hooded Warbler,	5-3, 18-4,	23	87
Wilson's Warbler,	1-5,	1	5
Pileolated Warbler,	1-3, 1-4,	2	7
Canadian Flycatching Warbler,	1-5,	1	5
American Redstart,	6-3, 23-4, 1-5,	30	115
Totals,		620	2639

Dec. 4, 1889.

Wants Information.

Anyone having a record of any of the following birds as occurring in the state of Minnesota will please correspond with me, the material to enter into the "List of Birds of Minnesota," that I have in preparation. I can find no record in that state of the species enumerated, some of which must occur.

Blue-gray Gnatcatcher, Hudsonian Chickadee, Prothonotary Warbler, Worm-eating Warbler, Connecticut Warbler, Hooded Warbler, Prairie Warbler, Bewick's Wren, Barn Owl, Piping Plover, Bell's Vireo, Smith's Longspur, Prairie Falcon, Harlequin Duck, Red-necked Grebe, Cinnamon Teal, American Scoter.

Geo. G. Cantwell.

Lake Mills, Wis.

Inca Dove at Austin, Texas.

It may be considered worthy of record that an Inca dove (*Scardafella inca*) was taken at Austin, Texas, on October 23, 1889. The bird was shot while in company with two others which escaped. It was positively identified and seen in the flesh by several gentlemen, but unfortunately could not be preserved.

Charles D. Oldright.

Austin, Texas.

Brief Notes.

L. S. Foster, 35 Pine street, New York, writes that he would like full particulars relating to Snowy Owls taken this season, contents of stomachs, etc. We hope that our readers will assist him.

Capt. N. E. Gould has taken five Snowy Owls off Chatham this season.

A. M. Tufts of Lynn sent us three specimens in Dec. We also received three from Seal Harbor, Maine, about the 20th. W. R. M. Tortat, Atchinson, Kan., reports six specimens taken in his locality.

During five years to date we have had over 130 Snowy Owls pass through our hands, about 100 being received in the meat. The largest number received at one time being 12, from Ottawa, Canada. Of the entire number some six or eight only were remarkable for being nearly wanting in markings, the finest selling for \$35 when mounted. The demand for them by the general public seems to have decreased, at least in the East. The specimens that have found most ready sale being those that were stuffed. "Large."

A Snowy Owl was shot while perched upon the chimney of a house in Northampton, Mass., Nov. 8th. Rough-legged Hawks arrived about Nov. 1st, and were very plenty about the meadows at foot of Mountains Tom and Holyoke. I shot a ♀ entirely Black. Took three Northern Shrike first week in Nov. J. W. Jackson.

A White Lark was recently shot near Junction City, Lane Co., Ore. This is a rare bird, probably a freak of nature. It will be skinned and stuffed for preservation. Clyde S. Keller, Salem, Or.

[We presume this to be the Western Meadow Lark, 501b ? Ed.]

G. L. Clary, Brattleboro, Vt., writes that he has recently received a fine specimen of the Red Lynx (*Lynx rufus*), female. This animal is very rare, and Mr. Clary is to be congratulated upon his good fortune.

C. K. Reed reports an Eagle shot at Barre, Worcester County, Mass., young, length, 39 in., extent 7 ft. 8 in., and asks, who can beat it in this state?

The attention of our readers is called especially to an advertisement for live game. The object is one that cannot fail to interest every sportsman in the state.

Oct. 26th a ♂ Long-tailed duck was shot on Lake Quinsigamond, Worcester, Nov. 2. Several Buffle heads were taken, and on the 16th a fine Drake Mallard. On Nov. 16th a pair of Snowy Owls were seen at the head of Ramshorn Pond, Milbury, Mass. Both were shot, but one escaped badly wounded. R. H. Holman.

Dr. H. E. Davidson, the well-known promoter of ichthyotaxidermy, is at present in Boston. He contemplates sailing for Bermuda early in January. His method of operation gives the best results that we have seen. During the past year he made a choice collection of fishes from the Mediterranean.

Oliver Davie, author of "Davie's Egg Check List," recently took the contract to mount a collection of Birds from the Holy Land. They were presented to the Ohio Wesleyan University, Delaware, Ohio, by United States Consul Webber, at Jerusalem—it embraced some 500 specimens. There also were about fifty species of quadrupeds. Among the birds were fine specimens of the Egyptian Vulture. Mr. Davie is a taxidermist of reputation and the trustees cannot have cause to regret their decision to place the contract in his hands.

D. D. Stone, Oswego, N. Y., made a pilgrimage to Boston last month. He made two successful climbs, one up Bunker Hill and the other into our office,—and he didn't use irons.

How the Heathen are Amused.—Clippings from Gold Hunter and Farmer's Journal.

"Fair."

CHASED BY A MOOSE.—The Kentville New Star says: Mr. George Creemer, of Morristown, Kings Co., while hunting in the woods a few days ago, saw two moose approaching him. He at once took aim endeavoring to shoot one of them. Unfortunately the gun burst, leaving the stock in his hand. The moose sprang at his assailant. Mr. Creemer then managed to climb a tree where he remained several hours when the animals walked off. Creemer then started for home. The moose then renewed his attack chasing the defenceless man many times around a tree which he tried in vain to climb, and finally gave himself up as lost. As a last effort he tried screeching which happily drove the moose away.

"Good."

A gentleman was out shooting near Totnes, England, the other day, when he had the misfortune to shoot his dog. For a moment he was too much overcome to see what damage he had done, and before he had recovered himself the animal, a black retriever, had come up to him, bringing in its mouth its own tail which had been shot clean off.

"Takes the Cake."

A REMARKABLE CASE.—Mr. Alex. McLellan, of North Gut, St. Ann's, has something strange to relate in reference to an animal of his. In 1887 one of his sheep had every indication of being about to lamb and the event was fully expected to occur in the course of a few weeks. At the proper time, however, it did not take place, nor ever afterwards. The other day Mr. McLellan had occasion to kill the sheep, when inside was found the young which should have been dropped in 1887. The lamb was petrified and a perfect shape, and the body covered with wool. The sheep has never been sick in any way.—[North Sydney Herald.]

Correspondence.

Makes a Suggestion, Scores a Point, and Backs the O. & O.

Editor Ornithologist and Oologist:

Permit me to say a few words in your valuable magazine of natural history in regard to data of specimens. I have birds in my collection from some of our most prominent field

workers that have very incomplete labels. Just the date, locality and sex is all that is noted. Not even the *name*, let alone length, extent of wing and tail. All these points help to make a specimen valuable. I even *weigh* my birds and mammals, for I collect also the latter. The stomach should be investigated and due note made on the tag. The data tells the story. It is no wonder to me to read of collectors preparing so many skins in one day. Do your work well even if it should take a little longer.

Allow me to say to our friend Mr. G. G. Cantwell that on the 24th of May, 1888, I procured a beautiful ♂ specimen of the *Streptopelia interpres* (Turnstone), on the shores of our beautiful lake, Minnetonka, and am therefore just one year ahead of him on this bird.

You may consider me a lifelong subscriber to your magazine.

Albert Lano.

Excelsior, Minn.

Read the Hatchet Story Before he did Honda's. Editor O. & O.:

A sort of Washingtonian regard for truth, which is the base principle of science, leads me to a few remarks on the snake and eagle story which appeared in your November number.

Now the snakes are of all animals the ones I have the least love for, and as I am also ignorant of their habits I can listen to a "snake story" without a dissenting murmur, and the bigger and more ferocious the reptile vanquished the more am I pleased. But I draw the line at the birds.

I appreciated the graphic description of your contributor from Colorado, especially the part where the birds finally spoiled his snakeship's anatomy, but his statement that one eagle measured nine feet, eleven inches, from tip to tip, and the other ten feet (less a quarter of an inch) proved too much for me. I would like to inform the gentleman from Colorado that we have some pretty big things in California; in fact to excite astonishment we simply tell the unvarnished truth. Our California Condor, of which there are a few left, is the *largest* bird of flight; and a specimen in my possession, bigger than any of the six or seven I have heard of, measures *only* nine and one-half feet in extent. Could not those "eagles" of our friend "Honda" have been Condors? Or were their prodigious proportions only apparent because of a rarified atmosphere? I have been in Nevada, but when it comes to Colorado I remove my hat.

H. R. Taylor.

Alameda, Cal.

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No. 2.

A Series of Eggs of the Golden Eagle.

In 1857, when Dr. Brewer began the publication of his *North American Oölogy*, he was unable to figure any egg of the Golden Eagle (*Aquila chrysaetos*) taken in North America. He only had a drawing, by Dr. James Trudeau, of an egg taken near the Hudson river. Yet he had access to the collection of the Smithsonian Institution, besides owning himself what was then probably the largest private collection in the country.

The times have changed, however, since then, and what used to be a very rare egg has long ceased to be so. California has furnished many sets of their eggs, and most of the sets now seen in collections are from that state.

Like most of the eggs of the *Raptores* which have markings they are subject to great variation, but the following seven sets now before me probably exhibit in a fair degree their range of coloration and size :

Set I. March 16, 1887. Northern part of San Benito County, California. Nest in a live oak tree, twenty-four feet from the ground, composed of sticks, with a lining of dried grass, green twigs and a few feathers. The nest was slightly hollowed, and was about five feet in diameter. The eagle flew from the nest. Two eggs, incubation commenced. No. 1: Ground color dull white, thickly spotted and sprinkled with pearl-gray, ecru-drab and a few spots of chestnut. The markings are thicker and heavier near the smaller end: 3.05×2.17 . No. 2: Ground color dull white, very thickly sprinkled with spots and specks of drab-gray, drab and chestnut. The markings are distributed pretty evenly all over the surface: 3.01×2.14 .

Set II. March 27, 1889. San Benito County, California. Nest rather small, made of oak-sticks and sage, lined with oak leaves; built in a small live oak on a hill side, only twelve feet from the ground. The tree grew over a steep

place, at the head of a little gulch. Two eggs, fresh. No. 1: Ground color dull white, thickly spotted and splashed with pearl-gray. There are also a few spots of russet: 3.11×2.45 . No. 2: Dull white ground color, thickly spotted and splashed with fawn color, tending to become confluent at the smaller end. There are also a few spots of lavender-gray, and quite a number of small markings of russet scattered over the surface: 3.05×2.45 .

Set III. February 26, 1886. San Benito County, California. Nest in live oak tree, thirty-one feet from the ground. It was composed of sticks and stubble, and measured six by five feet, with a depth inside of only four inches. Bird seen on nest. Two eggs, fresh. No. 1: White, heavily marked at the larger end with large spots of drab-gray, and on the smaller end there are a number of small spots of cinnamon-rufous and chestnut: 2.89×2.29 . No. 2: White, heavily blotched at the smaller end with cinnamon-rufous and chestnut: 2.86×2.21 . A beautiful egg.

Set IV. February 19, 1889. San Benito County, California. Nest in a live oak, forty-one feet above the ground; made of oak sticks and mustard stalks, with sage, and lined with dry oak leaves, moss and feathers. It measured from the top to the bottom thirty-two inches, and was forty-two inches across. Two eggs, containing small embryos. No. 1: This egg is of very unusual shape for this species, as it is distinctly ovate in form, and quite pointed. Ground color white, thickly splashed and spotted with pearl-gray. There are also a few small spots of russet, principally near the smaller end: 3.01×2.31 . No. 2: White, thickly marked with small spots and splashes of cinnamon-rufous, and a few spots of pearl-gray. The markings are evenly distributed over the surface: 2.99×2.28 .

Set V. March 1, 1888. Santa Clara County, California. Nest in live oak, forty feet from the ground, made of sticks, lined with straw, oak leaves, and moss. Birds seen. Two eggs,

fresh. No. 1: Bluish-white, entirely unmarked save for one small spot of burnt umber near the larger end: 3.19×2.26 . No. 2: Bluish-white, heavily splashed, principally at the larger end, with cinnamon-rufous. There are also a few under markings of lilac-gray: 3.04×2.28 . It is the handsomest egg of this species that I have ever seen. The nest which contained these eggs was found on February 28, 1888, and on the collector ascending to it he found only one egg—the white one, No. 1. On returning on March 1st, the second egg, No. 2, was found. While up the tree the collector was surprised to find the parent bird was not two feet distant from him, but on striking at it with his hat it flew away.

Set VI. February 23, 1889. San Benito County, California. Nest in a live oak about seventy feet above the ground, on a "side-hill." It was built of large oak sticks, with some mustard stalks, and pieces of grain sacks. The lining was of moss, oak leaves, feathers, and a part of a grain sack. The nest was very large, being four feet by three feet six inches. The eggs were taken after dark, and the eagle remained on the nest until it was reached by the climber, and she did not fly off until he grasped her tail—but stood up and showed fight, with all her feathers ruffled up. He struck her with his hat, when she flew off, much to his relief. Both birds flew screaming about the tree until the descent was accomplished. Two eggs, fresh. No. 1: White, heavily spotted and blotched with cinnamon-rufous, the markings being heavier near the larger end: 2.99×2.42 . No. 2: White, heavily blotched and spotted with cinnamon-rufous and russet. The markings are heaviest near the smaller end, but are nevertheless found all over the surface: 2.91×2.41 .

Set VII. March 9, 1889. San Benito County, California. Nest in a live oak tree, twenty-nine feet from the ground. It was new, and of the usual size. It was built of sticks, with an abundance of green live oak twigs and leaves, with a few bunches of Buckeye twigs and leaves. The lining was of green leaves and straw. Bird seen on the nest. Three eggs, fresh. Two of them had the larger ends one way, and the third was placed with the smaller end between them. No. 1: White, spotted and speckled all over the surface with chestnut: 3.11×2.25 . No. 2: Dull white, with a tinge of yellow, speckled and spotted with vinaceous-cinnamon and a few larger spots of hazel. The markings are heavier at the smaller end, where they become confluent

on one of the sides of the egg: 3.00×2.24 . No. 3: White, heavily spotted and splashed with cinnamon-rufous and chestnut. The markings become confluent at the larger end, but the whole surface is spotted: 3.01×2.21 . The shells of all the eggs are thick, and in some of them granulated.

The stories that are current in the books about this bird building its nest at a great height, on inaccessible cliffs, would appear to be merely fables, in most instances.

J. P. N.

Nesting of the Ruby-throated Humming Bird at Raleigh, N. C.

The Ruby-throated Hummer (*Trochilus colubris*) is quite a common bird here, but to any one not used to looking for nests, it might almost as well be extinct for all the nests he will find. The birds begin building about the first week in May, and from that time to the end of June (May 11 to June 24 are my dates) nests and eggs may be found in various stages. If one knows a tree the birds have formerly nested in, it is as well to look in the neighborhood, as the Hummer builds year after year in the same old spot, often only varying the exact position a few yards from last year's nest. The nest is placed from seven to forty feet high, near the end of an oak limb, and is almost always saddled on the limb and not in a fork; when built in a pine the nest is placed on a dead twig or twigs, but on any other tree on a live limb—oaks are the trees most used, and pines next—thus out of twenty-five nests which I have recorded the tree they were in, fourteen were in oaks, seven in pines, and one each in poplar, maple, apple and hickory. After the eggs have been taken it doesn't seem any good to look for the bird rebuilding near by, as I have tried to do this plenty of times, but never yet found a nest that I could suppose was the second attempt of a pair whose nest had been previously taken.

The nest can be found by watching the Hummers building but I find most nests by noticing whenever a Hummer seems alarmed at my presence, and then carefully searching for the nest, which I have almost invariably found close by, but when it came to getting a set of eggs from the nest, I have often been found wanting.

C. S. Brimley.

Nesting of the Pied-billed Grebe.

I noticed that in the September O. & O. Mr. Wm. G. Smith had an article on the nesting of the Pied-billed Grebe (*Podilymbus podiceps*) in which he gave it as his opinion that this Grebe incubates its eggs by the warmth of its own body rather than allowing them to hatch by the heat being generated by the decaying vegetation which usually composes the nest.

We should all feel indebted to Mr. Smith for this new information as it has hitherto been supposed that the Grebe invariably relied on the decaying vegetation to furnish the heat necessary to hatch the eggs.

At Minneapolis, Minn., I had ample opportunities to observe the nesting habits of this bird, and in that locality, as far as my experience went, I found that the birds never sat on the eggs in the daytime. Whether or not they do so in the night I am unable to say.

I have examined hundreds of their nests, and in every case where the set was complete the eggs were covered with the vegetable matter. Incomplete sets of three, four or five were generally found uncovered. This is a good point for the decaying theory it seems to me, as the birds did not want the eggs to begin to incubate until the full complement had been deposited.

I have also noticed that the deeper the eggs are imbedded in the refuse matter the more incubated they are, a fresh set having just a thin layer over them. I cannot account for this unless the layer first put on loses its heat after a time, and more is heaped on, for if we dig into it we find that the deeper we go the warmer it gets; and perhaps the Grebe realizes that it is best to be certain that her already incubated eggs do not become cold. But this is only theory and will not be tolerated; facts are what are wanted.

I have never seen a Grebe on her nest, although I have often come suddenly and noiselessly upon it. At other times I have been on the edge of swamps where the reeds were thin, and I could see three or four nests at a time, and although the birds were sometimes around they were never on or very near them. I think it will be safe to say that the Grebe does not sit on her eggs in that locality, but relies on the decaying matter to hatch them. Let us hear from others on the subject.

Geo. G. Cantwell.

Lake Mills, Wis.

A Series of Eggs of the Prairie Falcon.

The eggs of the Prairie Falcon (*Falco mexicanus*) are very beautiful. They are subject to great variation, and the series described below does not contain all their types of coloration, but is nevertheless well worthy of being placed on record.

Set I. April 6, 1888. Sargents, California. Nest on ledge of rock, on a precipitous bluff. The eggs were laid on a few pieces of friable rock. Five eggs, containing large embryos. Ground color creamy white, speckled, spotted, and clouded with vinaceous-cinnamon and cinnamon-rufous. Two of the eggs appear much lighter in color than the others, because the markings consist almost wholly of specks of vinaceous-cinnamon, and these are not closely distributed over the surface; consequently more of the ground color shows than in the others. In two others the markings are of cinnamon-rufous, and these also have cloudings of the same color. The fifth egg has also large spots and cloudings of cinnamon-rufous, and is by far the handsomest in the set: 1.95 x 1.57; 2.00 x 1.60; 2.07 x 1.58; 2.05 x 1.58; 2.11 x 1.64.

Set II. April 4, 1883. Near Mt. Diablo, California. Eggs laid on sand in a small cavity in a sandstone rock known as the "Mountain Builder." Mt. Diablo is in Contra Costa County, and the hole from which the eggs were obtained was about sixty or eighty feet from the base of the rock, but the rock was near the brow of a hill two or three hundred feet above the bottom of the cañon, on a hillside so steep as to make the nest virtually several hundred feet high. The distance from the top of the jutting point of the rock to the hole where the eggs were found was not more than ten feet, and was reached by the collector being lowered by a rope. The cavity itself was about two and a half feet in diameter and extended into the rock nearly three feet. Five eggs, incubation commenced. They are very handsome, having a creamy ground color, which is almost wholly covered with specks, spots and cloudings of cinnamon and vinaceous-cinnamon: 2.00 x 1.56; 1.99 x 1.56; 1.98 x 1.59; 2.11 x 1.57; 1.93 x 1.56.

Set III. May 1, 1887. Sweetwater County, Wyoming. Nest on rocky mound, along the Big Sandy River. The eggs (two in number) are very different from each other in appearance, one having a ground color of cinnamon

thickly sprinkled all over with specks of Mars brown, while the other has a ground color of russet, sprinkled with specks of burnt umber: 2.13 x 1.66; 2.14 x 1.68. (Incubation begun.)

Set IV. May 6, 1888. Sweetwater County, Wyoming. Nest on a rock on the bank of the Big Sandy River. Three eggs, incubation commenced. The ground color varies from a deep cream to hazel, and it is almost wholly obscured with specks of cinnamon-rufous and light chestnut: 2.28 x 1.68; 2.10 x 1.64; 2.20 x 1.67.

Sets II, III and IV are described by me in Davie's *Nests and Eggs*, 1889, p. 186.

J. P. N.

The Bohemian Waxwing.

This magnificent bird is a tolerably common winter visitor to this locality, in fact it is a characteristic bird of the northwest. Inhabiting as it does the northern part of both hemispheres, straying in this country south to the northern tier of states in winter only, comparatively few have an opportunity of observing its habits, hence a few notes may be of interest.

As far as my experience goes I find that these birds visit this locality every two years. I remember seeing them in '83; in '85 they were quite common, in '87 they were found, but very few; last year not a solitary bird could be found, while this year they are more numerous than ever before.

In '87 the first were seen the latter part of February, this year they put in an appearance on January 17, when a flock of about fifty were seen, since then they have been seen almost daily up to date (February 20).

All seen this year so far have been in the city; there are probably about four flocks of fifty each in different parts of the town. Occasionally they all join in one large flock and when they light on a mountain ash tree, it is surprising to see how the berries disappear. While thus engaged they are very tame, allowing a person to walk directly under the tree without taking alarm. While in search of food they are very restless, flying about from one place to another, remaining but a moment at each place till a suitable ground is found. After gorging themselves with mountain ash berries which form their principal article of diet, they fly to a neighboring tree to enjoy the effects of their meal. The tree selected is generally one tall enough to allow the sun's

rays to reach them over the house tops. Here they sit for hours if undisturbed, sunning themselves and digesting their food; under such a tree the ground will be found strewn with the skins of the berries, they swallowing the pulp and seeds; occasionally one will fly down to the roof of a house and take several large mouthfuls of snow; the berries seem to make them thirsty, as I have seen over half the flock eating snow at once, after feeding on the berries. They are generally found feeding early in the morning and again late in the afternoon; where they spend the night I have never been able to ascertain, but they are always seen to depart in the same direction as evening draws near.

Their manner of flight is peculiar; instead of moving in a compact body as most gregarious birds do, they string out, only two or three birds being abreast, giving the flock a much larger appearance than it really is. They are a long bodied bird and together with their quite long tail and neck, they present an odd appearance in flight; there is also a peculiar flutter of the wings, something characteristic of this species.

Quite often they are found in a frolicsome mood; a flock will pitch out of a tree top and with astonishing rapidity skim along near the ground, dart up over a house, turn a sharp corner like a flash and presently return to the same tree as meek as can be. Sometimes this feat is performed by a single bird and can hardly be followed by the sight. When acting thus their flight most resembles the nervous flying of the Chimney Swift, but much more rapid. A Peregrine Falcon would, I believe, be taxed to his utmost to overtake a Waxwing.

In looking over a series of these birds many curious forms are found. One has the outer quill of the tail only about one-fourth as wide as its fellows, a regular "spurious quill" in fact. Another has the yellow band on the tail missing, with the exception of a few fine yellow threads in some of the feathers; it had surely not been worn off as the tail was perfectly formed. Others have the yellow mottled with black and still others have the color bright and pure on one side of the tail and either missing or pale on the other.

High plumaged birds have the red "wax" on the tip of the tail as well as the wings, they are also said to have it occasionally on the end of the crest but I have never found one; they are generally more highly developed in the male.

These red appendages do not necessarily de-

note maturity, for on Oct. 9, 1888, I took a young bird in streaked plumage with the "wax" well developed. Taking this bird at that time of the year I consider of unusual occurrence and must have been raised in the vicinity as it was very young, pin feathers showing in various places. It was taken in the city, in company with a flock of young Cedar birds. Possibly there may have been more of *garrulus* among them, but I saw only this one.

The Waxwings generally leave us about the middle of March, but they have been known to linger as late as the latter part of April.

Geo. G. Cantwell.

Minneapolis, Minn., Feb., 1889.

A Series of Eggs of the Rock Wren.

The eggs of the Rock Wren (*Salpinctes obsoletus*) are still very rare, and little known in collections.

Set I. March 22, 1888. Sargents, California. Nest about five feet above the ground, on the side of a little used road, in a hole in a bank of stones. Five eggs, glossy white, sparsely speckled, principally near the larger ends, with cinnamon-rufous and burnt umber: .66 x .54; .66 x .54; .66 x .55; .66 x .56; .67 x .55.

Set II. June 23, 1886. Farallon Islands, Pacific Ocean. Nest in cavity among rocks. Made of dry sea weed, grass, etc. Glossy white, sparsely speckled with cinnamon-rufous. Six eggs, incubation commenced: .70 x .56; .73 x .56; .71 x .56; .69 x .56; .74 x .58; .76 x .58.

Set III. May 29, 1885. Rio Grande County, Colorado. Nest under flat rock about four feet from a road. Made of grass, cedar bark, and sheep's wool. Six eggs, fresh: .74 x .59; .69 x .54; .71 x .58; .70 x .56; .73 x .59; .71 x .58.

Set IV. June 13, 1886. Farallon Islands, Pacific Ocean. Nest in cavity, among rocks. Made of small dry sea-weed, dry grass, stalks, and thin fine rootlets. Five eggs, incubation begun. Glossy white, sparsely speckled, principally at the larger ends, with burnt umber: .80 x .60; .81 x .63; .79 x .61; .79 x .61; .79 x .61. (These are the largest eggs of this bird that I have ever seen.)

Set V. June 16, 1886. Farallon Islands, Pacific Ocean. Nest of dry weeds and grass, in cavity among rocks. Eight eggs, incubation slight. Glossy white, sparsely marked with cinnamon-rufous and burnt umber: .74 x .59; .72 x .57; .74 x .58; .76 x .58; .75 x .58; .75 x .58; .76 x .59; .75 x .59.

Sets II, III, and V are described by me in Davie's *Nests and Eggs*, 1889, p. 402.

J. P. N.

A Series of Eggs of the Golden-winged Warbler.

The eggs of the Golden-winged Warbler (*Helminthophila chrysoptera*) do not show any great variation except in size.

Set I. May 17, 1880. Monroe County, Michigan. Collected by Jerome Trombley. Nest of dead leaves, strips of bark, etc., on the ground, in woods. Four eggs, fresh. White, very sparingly speckled with russet and chestnut. One of the eggs is entirely unmarked, another has only a few specks, while the other two have nearly all their markings confined to the larger ends: .60 x .48; .60 x .49; .58 x .49; .60 x .49.

Set II. May 30, 1887. Detroit, Minnesota. Collected by J. W. Preston. Nest of coarse leaves, grass stems, and strips of bark, lined with fine fibre, situated on the ground in heavy woods. Five eggs, fresh. White, speckled, chiefly at the larger ends, with russet, and a few specks of burnt umber: .65 x .50; .64 x .49; .65 x .50; .64 x .50; .64 x .49.

Set III. May 21, 1886. Monroe County, Michigan. Collected by Jerome Trombley. Nest at foot of wild gooseberry bush, among grass, etc., on side of old road. Four eggs. Light creamy white, speckled at the larger ends with chestnut and lilac-gray: .65 x .49; .63 x .52; .63 x .51; .63 x .52.

Set IV. May 27, 1887. Adams County, Illinois. Collected by Otho C. Poling. Nest in a grove of willows placed four inches from the ground, in a wild pie plant. Made of leaves, grass, etc., lined with finer material. Five eggs, fresh. White, speckled with burnt umber, and a few specks of lilac-gray: .68 x .54; .74 x .51; .67 x .54; .66 x .52; .72 x .51. (This set as well as sets I, II and III, is described by me in Davie's *Nests and Eggs*, 1889, p. 360.)

Set V. May 24, 1889. Monroe County, Michigan. Collected by Jerome Trombley. Nest on the ground, at the foot of a black brier bush, near the edge of a thicket, in partly cleared low, wet woodland. Four eggs, incubation begun. White, speckled, principally at the larger ends, in the form of indistinct wreaths, with burnt umber: .64 x .51; .64 x .52; .64 x .51; .67 x .51.

Set VI. May 23, 1889. Monroe County, Michigan. Collected by Jerome Trombley.

Nest at foot of black brier, among grass and weeds, on edge of thicket, in damp retired spot. Four eggs, incubation advanced. White, speckled with russet, most heavily at the larger ends: .64 x .53; .65 x .51; .64 x .51; .61 x .52.

Set VII. May 22, 1889. Monroe County, Michigan. Collected by Jerome Trombley. Nest on ground, near the foot of a blackberry bush, in low, wet, and partly cleared woods. Five eggs, fresh. White, speckled with russet: .61 x .50; .64 x .51; .62 x .50; .62 x .50; .61 x .49.

Set VIII. June 8, 1887. Monroe County, Michigan. Collected by Jerome Trombley. Nest near foot of small elm bush, close to a fence in a partly cleared woodland and second growth timber. Five eggs, incubation begun. Light creamy-white, speckled and spotted with russet. Two of the eggs have specks of burnt umber and lilac-gray. All of them have the markings much heavier near the larger ends: .63 x .49; .64 x .49; .61 x .48; .64 x .47; .65 x .49.

Set IX. March 27, 1889. Monroe County, Michigan. Collected by Jerome Trombley. Nest on ground, near foot of alder bush, or edge of thicket of alders on low level ground. In border of partially cleared woods. Five eggs, incubation begun. White, sparingly marked, principally near the larger ends, with small specks of russet and burnt umber: .65 x .50; .59 x .40; .64 x .51; .66 x .49; .60 x .50.

J. P. N.

Nesting of the Blue Grosbeak in 1888 and 1889 at Raleigh, N. C.

1888. May 18th. Found a nest just finished, five feet high in a pine. On May 22d it had two eggs in it, and on May 24th the eggs were gone. This is the only instance of this bird building in a pine that has come under my personal observation.

June 2d. Found another nest three feet high in alders, alongside of a lane, and on June 8th I took a set of three fresh eggs. The bottom and outside of the nest were composed of weed stems, dead leaves, pine straw and paper, inside of fine grass and lined with horsehair—the nest being placed in an alder fork, the sides of the nest were attached to the fork by cobwebs, the whole being quite a compact structure. This description will do for the majority of nests found here, although the bird often uses cotton as well in building her nest. *

1889. June 3. Took a set of three eggs (after leaving them for three days) from a nest similar to above, placed in a sweet gum fork five and a half feet high. The nest contained some cotton.

June 10. Took a slightly incubated set of four from a nest in a mulberry fork four feet high. Bird on nest.

June 12. My brother took a slightly incubated set of four from a nest five feet high in a sweet gum sapling. This nest was a loose structure much like a Chat's, but was attached to the fork with cobwebs, which a Chat's never is; some snakeskin gave tone to the architecture of this nest.

June 20. Took a set of three from a nest four and a half feet high in a mulberry fork. This nest was of the usual compact type, but had a good deal of snakeskin in the bottom of the nest.

June 20. A colored man brought us a set of three and nest of this bird, which he said had been built in a grape vine in a neighboring vineyard. The young Grosbeaks had already chipped the eggs in their efforts to enjoy the free air of heaven, and this detracted from their usefulness. The nest was rather a small one very largely composed of roots, but had the unmistakable Blue Grosbeak look about it.

The Blue Grosbeak usually builds in an isolated bush or sapling, and the nest seems to be always under six feet in height. The set of eggs is three or four in this locality, and apparently the smaller number is as frequent as the larger.

C. S. Brimley.

Raleigh, N. C.

Nesting of Wilson's Snipe in Minn.

This familiar bird is well known throughout the greater part of the United States, but perhaps a few notes on its breeding habits will not come amiss. They arrive in Minnesota about the middle of April, the majority leave about the first of May, a few remaining to breed. There is one particular marsh where nests have been found for the last three years; it is in the city limits bordered on each side by railroads. The vegetation of the land consists of a few scattering willow clumps, cat-tails, tall swampgrass in parts, in others a sort of floating moss, with innumerable stumps scattered around; it is in reality what remains of a tamarac swamp that has been cleared of trees.

The 10th of May, 1887, found me tramping through this swamp for the sole purpose of

looking for Snipes' nests. I must say that I did not have much faith in the outcome, as in an hour's work I had flushed about a half a dozen birds but found no nests, I had also been over this same piece of ground the two preceding years without rewarding the intention of my search. I was beating around the edge of the swamp where the stumps were more numerous, and where the ground was firmer, when a Snipe got out right from under my feet, and flew about a hundred feet and dropped down in the grass. I was sure I had found a nest this time, and sure enough there it was right beside me; it contained one egg. I did not touch it, but stood there and "sized it up." I thought it not best to remain too long, so I marked the nest by a certain stump, and left, resolving to revisit it when it would contain a full set; so four days later I was on the spot again and was a little surprised to find the bird gone and three cold eggs in the nest.

Geo. G. Cantwell.

Occurrence of Snowy Owls at Monomoy Island, Cape Cod.

A flight of Snowy Owls reached the Cape shores early in November, spreading as far south on the elbow as Monomoy Island. Four birds have been taken by the station men, the last one being shot on the evening of Dec. 16th. In one instance a man from the Monomoy station saw an owl on the high beach sitting nearly under the gunwale of an old overturned lefe boat. He made a wide detour so as to get the boat between him and the owl, but the bird had his weather eye open, as is usually the manner of some of the wreckers on this island, and got away before the man could get within gun-shot of him. A member of the B. B. Club shot at one in November, which was in very white plumage, near Inward Point, and although he hit the bird hard did not succeed in getting it.

J. C. Cahoon.

Additions to the Avifauna of North Carolina and of Raleigh in 1889.

During the year 1889, the following two species have been added to the North Carolina list, making the total number 262. *Chondestes grammacus* (Lark Sparrow). A ♂ killed and another seen by H. H. Brimley at Raleigh, Aug. 19, 1889. I saw both birds myself but could not get a shot.

Strix pratensis (Barn Owl). A ♀ killed at Newport, N. C., by Jas. Moore, Esq., Nov. 7, 1889, and sent to us to mount. Besides the Lark Sparrow we have added two other species to our Raleigh list.

Petrochelidon lunifrons (Eave Swallow). One killed April 26, 1889; and tolerably common from then till May 6.

Rallus virginianus (Virginia Rail). One killed and another seen May 3, 1889; one seen May 6.

Other scarce birds that we have taken at Raleigh this year are *Mountain Solitary Vireo* (June 17 and 21); *Bicknell's Thrush* (May 17 and 18); *Golden-winged Warbler* (May 7, ♂). *Prothonotary Warbler* (April 19, ♂); *Cerulean Warbler* (Aug. 29, ♀); *Tennessee Warbler* (Sept. 19, ♀); *House Wren* (May 2, ♀); *Least Bittern* (May 3 (♂), 6 (♀)), *Broad-winged Hawk* (Aug. 26, ♂); *Bewick's Wren* (Nov. 6, ♀).

C. S. Brimley.

Raleigh, N. C.

A Series of Eggs of the Nashville Warbler.

Although not at all a rare bird the eggs of the Nashville Warbler (*Helminthophila ruficapilla*) are very difficult to obtain, and are seldom seen in large series in collections. Their variation in coloration is much less than that of the eggs of most of the Warblers. Six sets now before me may be thus described:

Set I. May 30, 1886. Hudson, Mass. Nest on the ground. Three eggs, fresh. Very light, creamy-white, speckled, principally near the larger ends, with vinaceous, and a few specks of lilac-gray. The markings form wreaths: .65 x .49; .69 x .49; .64 x .50.

Set II. May 30, 1887. Detroit, Minn. Nest of fine grass, lined with hair, etc. In tussock of grass in a marsh. Four eggs, incubation advanced. White, speckled with vinaceous and a few dots of lilac-gray. The markings are larger and heavier near the larger ends: .60 x .50; .61 x .49; .62 x .49; .62 x .48.

Set III. June 6, 1882. Preston, Conn. Nest under tussock of grass, imbedded in the soil, the edge flush with the surface of the ground. The edges of the nest were covered with moss like a Pewee's nest. Five eggs, fresh. Light, creamy-white, speckled, more heavily near the larger ends, with vinaceous and a few minute markings of lilac-gray. This set was collected by the celebrated oölogist "J. M. W." (Mr. C. L. Rawson), and contains much smaller eggs than

those usually laid by the Nashville Warbler. They measure: .56 x .45; .56 x .46; .56 x .46; .57 x .46; .57 x .47. (This set, as well as Sets I and II, is described by me in Davie's *Nests and Eggs*, 1889, p. 362.)

Set IV. June 8, 1888. Farmington, Maine. Nest on ground, at foot of small maple. Made of fine grass lined with white horse-hair. Four eggs, fresh. White, speckled with hazel. The markings are larger and closer together near the larger ends: .64 x .51; .64 x .52; .63 x .51; .60 x .48. This set also contains a Cowbird's egg.

Set V. June 4, 1887. Farmington, Maine. Nest made of grass and moss, lined with fine roots, and placed at the foot of a little bank, beneath dead and thickly overhanging brakes. Four eggs, fresh. Light creamy-white, speckled with hazel and a few minute dots of lilac-gray. In three of the eggs the markings are principally confined to the larger ends, but the fourth has larger spots and they are more scattered all over the surface: .62 x .49; .61 x .49; .62 x .50; .61 x .49.

Set VI. June 5, 1888. Farmington, Maine. Nest concealed in side of small knoll, beneath dead brakes and small spruce. Made of grass and moss, and lined with hair. Four eggs, fresh. White, heavily spotted, especially at the larger ends, with cinnamon rufous. The markings on this set are larger and heavier than on any other eggs of this species that I have ever seen, and they produce a very brilliant and handsome effect: .64 x .47; .64 x .47; .66 x .47; .63 x .47.

J. P. N.

New Species of Bower-bird and Bird of Paradise.

The latest ornithological discoveries at hand come from the pen of Mr. A. P. Goodwin, who accompanied Sir William Macgregor as naturalist, on an exploring expedition to Mount Owen Stanley, in the interior of New Guinea. Of the Birds of Paradise, of which more than thirty different kinds are known to ornithologists, one new specimen was added. This one was similar to the Golden Bird of Paradise (*Xanthomelus aureus*) and was named by Mr. Goodwin, *Xanthomelus Macgregorii*, in honor of the leader of the expedition.

This bird was discovered at an altitude of over 10,000 feet, is of rare occurrence and like all the birds of its class difficult to approach. The bird has golden wings, head and back; the breast and abdomen are black. This bird

remains in the Governor's collection and will be more fully described at some future time.

Another bird of interest discovered was a Bowerbird of the genus *Amblyornis*, which was named *Amblyornis Musgraveii*; this bird is somewhat larger than *Amblyornis subalaris*, described by Mr. R. B. Sharpe of the British Museum. The wings and back are of a dull darkish-green, the throat, breast and abdomen of a uniform brown, under the wings yellowish-brown. The crest is of a deep golden-orange, slightly tipped with brown and somewhat larger than in *Amblyornis subalaris*; this bird is found at an altitude of 4,000 feet, while the former inhabits the mountains up to 10,000 feet. The most interesting feature in connection with these two species of *Amblyornis* is their bowers or play grounds, which are so wonderfully constructed, that to describe the same would sound like a fairy tale. The bower of a *Subalaris* is dome-like and covered so that only half of the course can be seen. The floor forms a circle around a bank in the centre, which is ornamented with flowers and seeds. In the centre stands a small tree, the lower branches of which are interwoven with small sticks; these the birds throw down and replace at pleasure. The structure is composed of rough sticks, the thickest of which are about one-half inch in diameter. The bower of *Amblyornis Musgraveii*, the latest addition to that family, is constructed of moss and resembles in shape a marble fountain; it is built up from the ground about two feet; the outer rim is about three inches higher than the inside where the birds play, running round a small tree in the centre, interwoven with small sticks; these when seen in the morning while the dew is on them resemble a spray of water. It should be borne in mind that these bower birds play in a ring or circle, while its Australian brothers run through their bower and return; the bowers are also far inferior in construction to those seen in New Guinea.

[Mr. Goodwin is now travelling in this country, and has prepared a series of lectures, illustrated by numerous stereopticon views of the natives, birds and interesting localities.—Ed.]

A Series of Eggs of the European Tree Sparrow.

Seebohm states that the eggs of the European Tree Sparrow (*Passer montanus*) are similar to those of the European House Sparrow (*Passer domesticus*) but that they average

"smaller and usually darker and redder." (*P. montanus*, it will be remembered, is the species of European Sparrow that was introduced and naturalized in the neighborhood of St. Louis.)

For a long time I have been desirous of obtaining some sets of eggs of the European Tree Sparrow that were laid in this country. It was an easy matter to obtain European specimens, but these were not desired. Through the kindness of the well-known naturalist, Mr. Otto Widman, I have at last succeeded in my object, as he specially collected several sets for me last season, being especially careful about the identification of the specimens.

Set I. June 10, 1889. Old Orchard, Missouri. Collected by Otto Widman. Four eggs. Greenish-gray, thickly speckled and spotted with mouse-gray. In one egg the markings are darker, approaching to blackish-slate color, and in all the others the specks and spots are evenly distributed all over the surface of the eggs: .74 x .55; .72 x .55; .68 x .54; .69 x .55.

Set II. June 20, 1889. Old Orchard, Missouri. Collected by Otto Widman. Three eggs. The ground color in this set runs from drab into bistre, while the heavy spots and specks forming the markings range from bistre to seal brown. The spots become confluent near the larger end, and the general effect is that of very dark, heavily marked eggs: .75 x .57; .72 x .56; .71 x .55.

Set III. June 25, 1889. Old Orchard, Missouri. Collected by Otto Widman. This set originally contained six eggs but one of them was broken by the collector in removing them from the nest. Ground color grayish-green, varying in intensity in the different eggs in the set, thickly speckled and spotted with mouse gray. The markings are heaviest near the larger ends: .71 x .53; .70 x .53; .74 x .54; .71 x .55; .74 x .54.

Set IV. June 18, 1889. Old Orchard, Missouri. Collected by Otto Widman. There were six eggs found in the nest, but one was broken by the collector in taking them from the nest. In this connection it should be remarked that all these sets were laid in bird houses on Mr. Widman's premises; and the birds completely filled up the partitions of the house with the same heterogenous collection of trash employed by their cousins, the *Passer domesticus*. The entrances to the bird houses being small, it was a matter of considerable difficulty to remove the nests through them, and in doing this some of the eggs fell out and were broken. Four of the five remaining eggs of this set have a ground color of drab, but this

is so thickly covered with minute markings of hair brown and bistre that they have very much the appearance of eggs of the Long-billed Marsh Wren (*Cistothorus palustris*.) The fifth egg presents a remarkable contrast, for the ground color is of a very light greenish-white (almost a pure white) boldly marked with large spots of bistre. No one who was unacquainted with the remarkable eggs that one constantly finds in ordinary looking sets of *Passer domesticus* would think that this egg belonged to the same set as the other four: .78 x .55; .74 x .55; .76 x .56; .74 x .53; .74 x .55.

Set V. July 2, 1889. Old Orchard, Missouri. Collected by Otto Widman. Five eggs. Ground color of four of them is hair brown, very heavily marked with minute dots of olive and seal brown. The ground color is almost wholly obscured, and at a short distance they appear to be of a solid color, as is the case with eggs of *Cistothorus palustris*. The fifth egg has a white ground color, spotted heavily with bistre. It presents a marked contrast to the other four eggs: .77 x .57; .78 x .55; .75 x .56; .77 x .57; .78 x .56.

For purposes of comparison I also add the following description of a set taken in Europe:

Set VI. May 3, 1885. Loughboro, England. Four eggs. Ground color, pearl-gray, very heavily spotted and speckled with hair brown and olive: .71 x .55; .71 x .56; .69 x .54; .70 x .54.

As compared with a series of sixty-five sets of eggs of *Passer domesticus* in my cabinet, exhibiting fully the great variation to which the eggs of that bird are subject, the six sets of eggs of *Passer montanus* described above are very much smaller (eggs of *P. domesticus* averaging about .90 x .55,) and they are also much darker in appearance than the general run of eggs of *P. domesticus*. J. P. N.

In the Woods at Dogwood Time.

When the dogwood (*Cornus florida*) ripens its berries in November and the nights get cold, and sometimes the days also, it is interesting to note the birds that flock around their old favorites to get a good square meal.

First and foremost hundreds of Bluebirds fly backwards and forwards between the big trees and the dogwoods, seemingly never satisfied; then all the robins in the neighborhood join in too until some festive colored man brings his musket along and scatters them. The Hermit Thrush also unites with his more noisy and numerous relatives in the repast,

stray flocks of Cedarbirds, occasional Purple and Rusty Grackles, and plenty of Purple Finches add to the crowd of birds; all so far mentioned swallow the berries whole except the last, who only eat the pulp.

Pine Warblers, with an occasional Myrtle, peck away at the berries and the Golden-crowned Kinglet often joins them. Both Tufted and Carolina Tits and any Blue-headed Vireos that are about vary their insect diet with dogwood pulp. White-throated Sparrows, Snowbirds and other Sparrows also feed on them in immense numbers as also a good scattering of Yellow Hammers and Yellow-bellied Sapsuckers and a few of the other Woodpeckers also, though the *Dryobates* seem to prefer poison oak berries and the *Melanerpes* acorns.

As long as the dogwood berries last there are always plenty of birds in the woods, but when they are all gone the woods seem comparatively empty and lonesome and the collector had better try the open field or the creek woodlands.

C. S. Brimley.

Raleigh, N. C.

A Tame Jackdaw.

A few years ago, passing a bird store in New York, I saw a lot of young Jackdaws (*Corvus monedula*) of Europe. I bought one; being very tame and intelligent I at once gave it his liberty, first slightly cutting one wing. This soon moulted out perfectly.

Mine is a farm house in New Jersey, a garden in front and the rest of the ground in small fruits and orchard. Jack made himself quite at home, so much so that had his parents been domesticated for ages he could not have shown himself more contented. He knew every member of my family, including dogs, cats and poultry. Of course he abounded in those little tricks, such as running off with any little article that attracted his fancy. These he took to his hiding places, carefully depositing them when not observed. How curiously does this natural habit of the bird show itself. As soon as it was old enough to run about, it took up any little thing it could carry and hid it under carpet or mat. In the garden it was into every nook and corner, finding much of its own living; but no matter where it was, we had only to call Jack and he flew straight towards us. He would eat almost anything—bread, meat, fruits, etc.,—but was very fond of roasted peanuts, for which he would run his

head into my wife's pocket in search of them. He was extremely inquisitive, looking into every crack, hole or crevice. When animated at seeing a chicken fight, when called or hungry, he would keep up a loud cawing which was not unpleasant. I had a little house for him with a glass window and hinged door in front. This was Jack's residence, and he retired in it every night in the garden. As the weather grew cooler I moved it by degrees toward a cellar window, and Jack did not forsake it. As winter approached I sat the house inside the window, leaving a small pane of glass out. Jack followed it along a board to a shelf. On cold nights when he retired he actually took hold of a little hook and pulled the door close after him. That seems more than *instinct*; in the morning he would open his door and come cawing out for his breakfast. At times he would fly off quite away and visit crows on the edge of a wood, and it was amusing to see the surprise of the crows at such a stranger; the interview generally ended at the crows intimating that his presence was not one of social equality. He faithfully returned home, in fact, his heart was set on his home and its surroundings. Jack was after everyone on the farm, watching their occupations, whether hoeing corn or picking fruit, and was strongly attached to his mistress who fed him. In spring he was much interested in the poultry, sometimes settling disputes, but the most singular part of his life was his affection for one hen; he followed her all day long when not off on a little ramble, or being fed. Although the hen did not resent his affections she did not on the other hand reciprocate them.

He would allow no male or female bird too close to her while he was present. Every time the hen laid he sat by her till she came off the nest. In due time the hen wanted to incubate. Thinking she would be better out of Jack's way I removed her to the barn, and set her on eggs in a barrel half filled with hay-seed. Jack soon found her and spent most of his time on the edge of the barrel. Now occurred a singular freak of nature which will interest a naturalist. Jack was under the impression that he must perform some architectural duties, so he kept bringing in all kinds of dry rubbish such as corn cobs, sticks, etc. These he dropped all around the hen till she was deeply buried in the edge of the nest. After getting enough of this material he struck a new idea, that the nest must have some soft lining, so he took to carrying in horse-hair from the stable, but as the supply did not seem plentiful enough

to suit him he attacked the cat and dogs, lighting on their backs and grabbing some fur, flew off with it, much to the disgust of the animals, who soon resented this familiarity and stopped his egressions; but he soon discovered another source of supply. Our horses had shed their long hair, so after trying their backs a few times he gave that up, but not until he discovered the long hair left on their fetlocks. This he went for in a cunning, cautious manner. He would creep up to the horses' feet and make a grab and as the hair was loose at this season he managed to get some every time. Of course the horse would raise his foot at him but Jack was too nimble to be hurt that way, but repeated the same thing many times, especially while the horses were out on the farm.

Some naturalists argue that animals learn their duties from their parents; it is hardly possible that this bird remembered the old nest at home. When we wanted to attend to the nest Jack always objected to our approaching it, and even refused food near the nest. One day I took a careful look around for Jack. Not seeing him anywhere I thought it a good time to see if the eggs wanted attention. I leaned over the barrel to look in when down came Jack's sharp bill onto my bare head like a flash, so I was glad to beat a hasty retreat. Things all went smoothly till this time, but now Jack wanted to be master (as he supposed) of his own family, for when the chicks were hatched and with the hen put out in a coop Jack wanted to be inside with the chicks and seemed to want to take part in feeding them. This the hen objected to, and hustled him out. When the chicks got large enough to run with the hen Jack was their constant attendant, and tried to feed the chicks from his mouth. When the chicks grew up he paid them no more attention, but kept up the constant shadowing the hen. Jack now began to get a little troublesome. From the beginning of this attachment he left his house and roosted by the hen in the poultry house. As cold weather advanced and the house filled up he made quite a commotion every evening by clearing all the poultry off the roosts for several feet around his hen. This caused so much trouble that I removed the hen into a fenced off poultry yard, hoping he would not follow her. The next morning, hearing a great hubbub in that yard, I went to ascertain the cause and found Mr. Jack had discovered his favorite and tried to keep her company, but every time he alighted in the yard the whole lot,

cock and hens, went for him in a furious manner and made his feathers fly rather too freely for his comfort, till at last poor Jack had to abandon her. The sorrowful plight of his plumage showed he did not relinquish his first love without a hard struggle; but he soon paid his personal regards to another hen in the first house. This hen hatched in the poultry house with the same voluntary contributions to the nest-building. The hen was removed to a coop set out on grass, with her chicks, and here Jack was anxious to proffer his paternal assistance, which the hen resented by striking at him every time he attempted to intrude in the coop. About this time his first love also hatched and was cooped out. She also impressed Jack that his presence was not required. Between his two unreciprocating mates Jack became very uneasy, and shortly after vindictive and peevish, and visited his disappointment on the poor little chicks. He killed two outright. We then put little wired yards in front of the coops to protect the chicks, but he became so bitter that he stood and watched for the chicks' feet when they came near the edge, he then got hold of them and pulled off their toes. Now came a crisis. Jack must be got rid of or we should lose the two broods of chickens, which were pure bred Dorkings. As he had been very troublesome for some time past I thought it best to confine Jack. I tried to get him into the hen-house, but Jack, with all the cunning of his species, perfectly well knew that some change was in store for him, refused to be caught and became defiant. Finding that I must stop his depredations I took my gun, and with a heavy heart brought poor Jack down upon the green sod. I shall never forget that day, but here I must stop.

Henry Hales.

The Evening Grosbeak Comes East.

In the Boston Transcript of January 30, 1890, Mr. Frank A. Bates made the first public announcement of the capture in New England, at four different places, of the Evening Grosbeak, a bird hitherto never seen here, having reported the fact at the meeting of the Boston Scientific Society on the previous evening. We append detailed records as sent us.

IN NEW YORK.

A male and two female Evening Grosbeaks were shot here yesterday, January 20.

Alvan H. Alberger.

Ithaca, N. Y.

IN MASSACHUSETTS.

H. L. Clark of Amherst received, January 8, a fine specimen of the evening Grosbeak shot in South Amherst. He says this is the *first instance* on record of this bird being found in New England. Is that a fact?

G. W. Jackson.

It gives me pleasure to record the capture of an adult female Evening Grosbeak (*Hesperophona vespertina*) in Wellesley, Mass., January 15, 1890, by Mr. Thomas Smith, a gardener in the employ of Mr. H. H. Humewell.

This bird was shot from a maple tree on the estate of Mr. R. G. Shaw about nine o'clock in the morning, and was the only one seen that day, although Mr. Smith is quite positive he saw one (possibly this same bird) a few days previously and describes the note, though distinct, as being quite similar to that of the Pine Grosbeak (*Pinicola enucleator*).

So far as I can learn and I have the authority of Mr. William Brewster, this is the first specimen of this species recorded, as having been taken, not only in Massachusetts but even in New England.

Shelley W. Denton.

Have you ever known of the Evening Grosbeak being taken in Massachusetts? I got a fine male shot here last Wednesday, January 22.

N. Vickary.

Lynn, Mass.

Evening Grosbeak at West Pelham, Mass., January 24.

Paul S. Roberts.

IN NEW HAMPSHIRE.

I have secured five Evening Grosbeaks (*Hesperiphona vespertina*) on January 6, and four January 9, one a very fine male, two that we were able to determine as females, and two with female plumage, but I could not make out the sex.

This is evidently a rare occurrence and I thought it might be of interest to you. There were four or five more in the flock that were not taken.

James P. Melzer.

Milford, N. H.

Editor Ornithologist and Oölogist:

While out for a walk Sunday morning, February 9, I had the remarkable good luck to see six Evening Grosbeaks, three males and three females. These birds were so very tame they allowed me to approach very near to them and gave me a splendid chance to study the color-

ings and markings of this beautiful bird. The males were wonderfully brilliant, and the females were very much like their lords only their plumage was not so bright and were somewhat smaller in size.

This is not the first time this winter this bird has been found in this locality.

D. C. Swift.

Silver Creek, N.Y.

Can the Cowbird Make its Eggs Resemble Those of Other Birds?

I have a pet theory that the Cowbird (*Molothrus ater*) can control the amount of pigment placed on her eggs, making them dark or light at will, so as to have them resemble as much as possible the eggs which belong to the nest in which she is to deposit hers. If she deposits them in a Vireo's nest they will be light, if in a Song Sparrow's (*Melospiza fasciata*) they will be dark.

This may not be the case always, but it holds good as far as my experience goes.

Geo. G. Cantwell.

Lake Mills, Wis.

[I am afraid Mr. Cantwell's theory will not stand the practical test of examination. An examination of the sets of eggs containing those of the Cowbird, in a very large collection, shows that his theory is purely fanciful, and is not sustained by facts. Probably if Mr. Cantwell had ever seen a really large collection of eggs he would not have written the above.

J. P. N.]

Petered Out.

At last the edition of Coues' Key to North American Birds is now exhausted, and cannot be supplied by its publishers, who evidently did not run off a cook book edition. Judging from the protracted and annoying delay in bringing out the one just defunct, the present generation will have time to gain much in wisdom before it sees a succeeding one. A careful inquiry at the publishers' as to the prospects was as enlightening as a communion with a Stone God. We shall miss it from our stock. On many an occasion when the interest of a customer has waned, as a last resort, taking a copy from the shelf and opening at the first illustration, a short lecture on color blindness, has been both effective and impressive.

THE
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ESPECIALLY DEVOTED TO THE STUDY OF
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and to the
INTERESTS OF NATURALISTS.

Under the Editorial Management of

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FRANK A. BATES,	Boston, Mass.

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Brief Notes.

Among the numerous suggestions that we have received from subscribers regarding what they consider would be an improvement in the O. & O. was one that we had already contemplated. He writes, "Why don't you add a personal column so that we can know what our naturalists are doing?" The Brief Note column is open to just such information. We would like to hear from subscribers when they are about making a collecting trip, when they get anything new, if they are making private collections, what success they are meeting with, and if they fall overboard and get wet who helped them out. Let it be a free and easy department. A starter:

Dear Sir—Your thrilling adventures in January O. & O. remind me of a narrow escape of an old friend of mine who annually spends a month deer hunting in the wilds of Canada. Here it is as told by himself. One day while standing in a runway waiting for a deer he saw the noble monarch of the forest tearing down the mountain side straight toward him. Taking a bead on the approaching deer he let go and was surprised after a moment's lapse to hear the bullet hum by his ear and bury itself into a tree behind him. Upon investigation he found the deer had received the bullet full in the breast, but upon seeing the shooter had turned right about face so suddenly that the bullet in coming out of the deer's ham had sped directly back to the shooter with almost serious result. Providence willed it so we trust.

Yours truly,

G. E. HARRISON.

Buffalo, N. Y.

We have received from time to time from our subscribers and patrons photographs of themselves and of specimens of their work, which is assuming quite an interesting collection. A short time since Harry Austen, Halifax, Nova Scotia, sent a series, showing

groups of birds that he had been mounting which make a fine display. They indicate a superior grade of workmanship.

While at that locality last fall we called on Major Thomas I. Egan. After viewing a large collection he handed us a photo of a large moose that he had just preserved. Andrew Downs, the pioneer taxidermist in the same city, has just sent us a large photo of himself. As we look at it, seated with favorite stag hounds on each side of him, it is a picture of nature itself. Another photograph, entitled "In the Temple of Nature," a hillside, shows our friend Jos. M. Wade (former proprietor of the O. & O.) in the foreground.

Baldwin Coolidge, the Boston photographer, has for some time been giving attention to the study of horns, antlers and tusks. When he sees a remarkable specimen he photographs it. A series of nine, size 8x9, which he left on our desk, taken from specimens we loaned him, are from horns of the woodland caribou (Newfoundland), showing a remarkable, heavy structure and number of points, Rocky Mountain sheep, goat, etc. Duplicates can be obtained.

We intend in future to photograph mounted specimens that pass through our hands. Now that the art of photography is so general we think that the taxidermists would find it of profit to photograph what they consider their "boss jobs." It will serve as a pleasant reminiscence, and also will enable them at *all* times to show what they can do.

There is still another benefit that may be derived; a photograph shows any imperfection in the outline and will enable them to see defects which they can improve.

A Great Gray Owl was shot, January 14, in Vermont near the Massachusetts line. It was a ♀ and very poor in flesh. The stomach contained the remnants of a mole. A Snowy Owl was taken, January 13, between Boston and Worcester; it also did not show high living. C. K. Reed, Worcester.

The promptness with which a large proportion of our 1889 subscribers have renewed or signified a wish for us to continue, has exceeded any previous year. As usual we have received many very pleasant postscripts.

City Belle. "I hope your stay in our city will not be short, Mr. de Science."

Mr. de Science (a member of the A. O. U.). "Thank you, but my sojourn must be brief, I am here attending the Ornithological Convention at the Museum of Natural History, and the session will soon be over."

C. B. "What kind of a convention did you say?"

Mr. de S. "Ornithological, about birds, you know."

C. B. "Oh yes, yes. How simple of me! Do you think they will be worn much next season?"—[The Cottage Hearth, Boston.]

I have a wild cat in my collection of wild animals that weighed 31 lbs. when caught. It killed eight sheep belonging to a farmer in the mountains the night before it was killed. R. E. Best, Kingston, N. Y.

Prof. L. L. Dyche, curator of the University of Kansas, has just returned from a six months' collecting trip in British America. He obtained a number of Rocky Mountain sheep and goats, a pair or more of nearly all the animals in that section. We think that he will have a few duplicates to dispose of. It will be remembered that we reported a successful trip after buffalo last year.

Fred J. Brezee, the Council Bluffs taxidermist, is now located at Lincoln, Neb., as curator at the state

university. He went west with a determination to make his mark, and we believe that he will.

A number of Great Gray Owls have been taken in New England this winter. Snowy Owls fairly common, other owls scarce. Redpolls common. Snow Buntings, Pine Grosbeak and Crossbills, scarce.

H. H. Brock, Portland, Me., reports a specimen of the European Corn Crake (*Crex crex*) killed by John Whiting at the dyke in Falmouth, Me., about four miles from Portland. Another was shot at the same time but was so mutilated that it was thrown away. He also reports two Great Gray Owls.

C. F. Newell, an energetic taxidermist, located at Calais, Me., last fall, and during the winter has done quite an extensive business. He was enabled by his location to obtain a large number of deers' heads, for which he found a ready market. On Nov. 10, the hunters reported to him that they had seen four white (*Albino*) Bucks. He succeeded in securing one. It was entirely white except a patch on the head. Last summer he had a set of moose horns that weighed 40 lbs., and the extent was 4 ft. 9 in. He has reported some Great Gray Owls. He is now preparing to take a trip north for the purpose of collecting mammals.

One of our correspondents calls our attention to the fact that Dr. Morris Gibbs in his new magazine refers to us as an amateur publication. The doctor for a long time has been a contributor to our columns, and in his enthusiasm evidently forgot for the moment "dat dis chile hab crep some time."


It would be very, very sad if an open rupture should occur between a scientific and the minor publications. The clouds seem heavy and threatening in certain quarters.

It is to be regretted that through some blunder of either printer or binder some imperfect copies of "Davies' Nests and Eggs" have got on the market. Without consulting Mr. Davie we feel assured that he would wish to have any such case reported at once. Examine your copy and see if all the pages are present or accounted for.

The Loon has been sold to the publisher of the Oologists' Exchange. Mr. Surber, its former publisher, has sent us a complete file.

The following single numbers of the O. & O. are exhausted and to procure them now parties will be obliged to buy complete volumes. Others will soon be in same condition. Look through your file and see what you require. Vol. X, Nos. 2, 4, 7, 10, 11. Vol. XI, No. 1. Vol. XII, No. 7. Vol. XIII, No. 1.

A party of Boston gentlemen, Messrs. Perkins, Codman, Keyes and Storrow, recently returned from a trip to the northwest. They brought back as trophies six heads of the Rocky Mountain sheep, one ewe and a number of goat and deer. When mounted they presented an interesting and novel sight, at least to Boston sportsmen.

The A. O. U., as was predicted by outsiders, promptly sat down on Mr. Maynard's two new species—the Smoky Woodpecker and Coast Jay. At the same time did they not produce a little chaff? 

Texas Ben walked into our office a few days since and tenderly laid his pet on the counter, a 7 ft. specimen of the Bull Snake that Boston's east winds had proved too much for. We naturally handed him a copy of the O. & O. that contained Honda's article, and asked his opinion. He replied, "I have shot eagles in Texas 9 ft. from tip to tip." We called his attention

to the fact that scientific bird men never allowed over 6 ft. 8 or 9 in. He was very emphatic that 9 ft. was not an exaggeration. Texas Ben is a well-known character. Now what are the facts?

The snake was a beautifully marked specimen, and was tanned successfully in twenty-four hours, by the Currier Tanning Compound. He will use it for a belt.

We have a fine mountain lion from A. S. Bennett, Colorado.

Two caribou heads from the interior of Newfoundland are the largest that we ever received.

John C. Cahoon started for Brownsville, Texas, sailing from New York. La Grippe took passage with him, and when he reached Galveston he took the next steamer back. Not everyone can afford an ocean trip. We simply took quinine.

Some of the members of the Massachusetts Fish and Game Association have started the project of stocking this state with game such as Wild Turkey, Plumed Partridge, Pineated and Sharp-tailed Grouse, and already have a fund subscribed. In this they should have substantial support and we sincerely hope that the experiment may be a success.

A set of eight eggs of the Brewer's Blackbird was taken May 5, 1889, at Monte Blanco, Ventura County, Cal. The nest was located in an oak, thirty feet from the ground. The set is in our possession.

Louis Barrett, formerly in our employ, started on a collecting trip early in January. He intends to visit Florida and Mexico. "Lewy" is an enthusiastic young taxidermist, and although of limited means he undertakes the trip entirely for himself. He surely deserves success.

Two Great Gray Owls received from Belfast, Maine. Color of the eyes of one a light straw yellow.

A postal bearing an advertisement of a typewriter, from Pope Manf'g' Co., addressed to the editor who furnishes the poorest copy after being ignored by us, was referred to A. E. Pettit (Oologists' Exchange). He fired it at Thad Surber (The Loon) who despatched it to Frank H. Lattin (The Oologist) who promptly forwarded it to R. B. Trouslet (The Naturalist), and back it came to us. It did not go around the world but it struck a hard crowd just the same.

A lot of Sulphur Rump Tanagers found their way into the market this season. They are a beautiful bird from South America. The plumage is a rich velvety black with a bright sulphur yellow patch on the back.

The U. S. Department of Agriculture, Division of Ornithology, is sending out the forms for reporting migration notes for 1890, also for lists of birds known to breed at various localities. The importance of this work is well known to our ornithologists.

We note in the January Oologist a report of an eagle taken near Prairie Du Lac, Wis., that measured 9 ft. from tip to tip?

We note with pleasure that the citizens of Tiffin, Ohio, are making a move to secure the collection of Dr. J. Kost, who has charge of the Polytechnic Department of the Heidelberg University.

This collection will, of itself, form one of the finest museums in the country, and it is gratifying to see that flourishing city has sufficient public spirit to prevent a fine collection from having its usefulness destroyed by being scattered broadcast, as is too often the case, from the apathy and short-sightedness of the people.

H. B. Holmes writes that he secured a ♀ Mourning Dove from a pair on January 18, at Beloit, Wis., and asks if it is not uncommon. We should say that it was out of season.

W. H. Lucas, Bridgeport, Conn., writes, "I see that you advertise the Stevens collecting gun. I use it altogether. Mine is a 38-cal. I can shoot a robin from the top of our tallest tree.

By the notice in O. & O., I secured records of Worm-eating and Prothonotary Warblers, also Red-necked Grebe. I cannot find any note of Blue Gray Gnat-catcher, to my surprise. Geo. G. Cantwell, Lake Mills, Wis.

Avifauna of Orleans County, N. Y., completed by Neil F. Posson and published in the Oologist, Vol. VI, No. 5, notes 174 species, of which 89 breed within the county.

William C. Flint, Esq., San Francisco, Cal., one of our subscribers, is deeply afflicted in the loss of his last and only son, aged 12 years. He met his death instantly by the accidental discharge of a pistol in his own hand.

A specimen of the Bald Eagle in the young plumage, in the collection of the late Mortimer Blake, D.D., Taunton, Mass., measures 8 ft. 4 in. in extent. Harry Gordon White.

There have been but 20,092 crows killed in Maine during the past season, at an expense to the state of \$2095.30. The appropriation for the years of 1889 and 1890 is already exhausted. Two hundred and forty-one towns have made returns. Some of the leading towns are Harpswell, 434; Union, 430; Waldoboro, 367; Newport, 329.—[Damariscotta Herald, Feb. 6, 1890.]

Correspondence.

That Cheeky Cowbird.

Editor of O. & O.:

Having read with pleasure and profit the article on the Cowbird by Morris Gibbs, in the January O. & O., and the list of birds whose nests are appropriated temporarily by said Cowbird, to this list I can add the following: Pewee, Field Sparrow, Cardinal Grosbeak, Black-throated Bunting, Warbling Vireo, White-eyed Vireo, Prothonotary Warbler, Kentucky Warbler, Worm-eating Warbler, Black and White Warbler, Blue-wing Yellow Warbler, Baltimore Oriole, Yellow-throated Vireo, Blue Grosbeak, Brown Thrasher, Western Meadow Lark, Yellow-breasted Chat. Cannot we have a list of all the birds who suffer from this bird? Let us hear from all who can add to the list.

S. R. Ingersoll.

Ballston Spa, N. Y.

More Cowbird Eggs.

Editor O. & O.:

At various different times I have noticed in the columns of the O. & O. lists of the birds in whose nests eggs of the Cowbird have been found.

I have never noticed in these lists an account of the Cowbird appropriating the nests of the Kingbird or of the Meadowlark, and if these two be additions to the already known imposed upon birds I would like to add them, as I have found Cowbirds' eggs in the nests of both.

Neil F. Posson.

Medina, N. Y.

P. S.—The O. & O. is a "dandy." I think it a very attractive feature to have different volumes in different colors. Success to the journal.

[I have a set of the Meadowlark—also one of the Blue Jay, containing eggs of the Cowbird—in my store.

F. B. W.]

Editor O. & O.:

During the fall of 1889 I added the following birds to my collection which are not very common in this locality.

Oct. 2d. Goshawk, young, ♀.

Oct. 9th. Sparrow Hawk, adult ♂.

Oct. 18th. Pigeon Hawk, adult ♂.

Oct. 12th. White-crowned Sparrow, ♀.

Nov. 17th. Shot two Saw-whet Owls (males).

On October 14th I shot a White-throat Sparrow, of which the breast, head and down to the middle of the back are pure white; the wings, rest of the back and tail are of the usual color.

While walking in the woods to-day we flushed a Woodcock, although the swamps have not been frozen until the past week I think the bird's wintering is rare.

W. H. Lucas.

Bridgeport, Conn., Jan. 26, 1890.

New Publications.

American Osprey—monthly, 4 pp., 6 x 8—25c per annum. Published and edited by Paul B. Haskell, Ashland, Ky., an amateur ornithological publication—endorsed by our best wishes.

Bulletin of the Newton (Mass.) Natural History Society. Vol. 1, No. 1 (October), \$1.25 per vol. C. J. Maynard. A record of such matters as are brought before the society. Contains: structure of the tongues of Woodpeckers illustrated, C. J. Maynard; the philosophy of natural expression, T. A. Metcalf, O. B.; the Arrow-headed Warbler of Jamaica, illustrated by colored plate, C. J. Maynard.

The Semi-Annual. Vol. 2, No. 1, W. H. Foote, Pittsfield, Mass. Frontispiece, The Golden Eagle and Eyrie.

The Extermination of the American Buffalo, by William T. Hornaday, Superintendent of the National Zoological Park, from the report of the National Museum, 1886-87, pages 369-548, and plates I-XXI. In this publication, the author, one of the leading American taxidermists, takes up the subject in his pleasing and historic manner, from the earliest possible record to the date of *practical* extermination. He points out the ruthless manner in which they have been annihilated (not by taxidermists), which he vividly portrays by illustrations. A map showing the early extensive range of this noble animal, and how rapidly it was contracted is not flattering to the foresight and common sense of American sportsmen and hunters.

The part taken by the Indians in this wanton destruction is now being justly paid for by the loss of a food supply, and we suffer as Mr. Hornaday shows by a loss of what might have been a great income to the government. The frontispiece is an illustration of a herd that was collected and prepared by the author, and is now in the Smithsonian Institution.

It is particularly fortunate that a gentleman of Mr. Hornaday's rare ability should be so situated that he is enabled to develop his skill and to the benefit of the country.

Eggs of North American Birds, by Chas. J. Maynard, 12 mo. 159 pp. illustrated with ten hand-colored plates, cloth, \$2.00. DeWolf, Fiske & Co. This is a second edition of the same work lately issued in parts and sold by subscription. The great reduction in price insures it a popular circulation.

Our Regular Exchanges for 1889.

AUK, Vol. IV. New York, N. Y.
 AMERICAN MICROSCOPICAL JOURNAL, Vol. X. Washington, D. C.
 BULLETIN OF THE NEWTON NATURAL HISTORY SOCIETY, Vol. I. Newton, Mass.
 CANADIAN ENTOMOLOGIST. London, Ont., Canada.
 CONTRIBUTIONS TO SCIENCE, Vol. I. Newtonville, Mass.
 COTTAGE HEARTH, Vol. XVI. Boston, Mass.
 ERIE HARBOR, Vol. I. Erie, Pa.
 FOREST AND STREAM, Vol. XXXIII. New York, N. Y.

FLORIDA AGRICULTURIST, Vol. XVI. Delano, Florida.

GEOLOGICAL AND SCIENTIFIC BULLETIN. Houston, Texas.

GREELEY, Vol. I. Discontinued.

LOON. Discontinued.

KANSAS ACADEMY OF SCIENCES, transactions.

MERIDEN SCIENTIFIC ASSOCIATION, proceedings.

MINING AND SCIENTIFIC REVIEW, Vol. XXIII. Denver, Col.

MICROSCOPE, Vol. IX. Trenton, N. J.

NATURALIST, Vol. IV. Kansas City, Kan.

NATIONAL MAGAZINE, Vol. I. Chicago, Ill.

NEW YORK ACADEMY OF SCIENCES, proceedings.

OOLOGISTS' EXCHANGE, Vol. II. New York, N. Y. Discontinued with February issue, '90.

OTTAWA NATURALIST, Vol. III. Ottawa, Canada.

OUR LITTLE ONES. Boston, Mass.

PLAIN TALK. New York, N. Y.

POULTRY WORLD, Vol. XVIII. Hartford, Conn.

SEMI-ANNUAL, Vol. 1. PITTSFIELD, MASS.

STAMP WORLD, Vol. VI. Lake Village, N. H.

SCIENTIFIC AMERICAN, Vol. LXI. New York, N. Y.

TEACHERS OUTLOOK, Vol. 1. Des Moines, Iowa.

TRUTHS OF NATURE, Vol. I., discontinued.

TEXAS LIVE STOCK JOURNAL, Vol. X. Fort Worth, Texas.

TIMES, Vol. VII. Hyde Park, Mass.

VERMONT MONTHLY, Vol. II. Weathersfield Centre, Vt.

WADES' FIBRE AND FABRIC, Vol. IX. Boston, Mass.

WEST AMERICAN SCIENTIST, Vol. VI. San Diego, Cal.

WATERTOWN ENTERPRISE, Vol. XI. Watertown, Mass.

Exchanges that have reached us in a spasmodic manner, we cannot discriminate from samples, and have not noticed them.

MARCH, 1890.

VOL. XV.

NO. 3.

Ornithologist



AND

Ornithologist

Established 1875.

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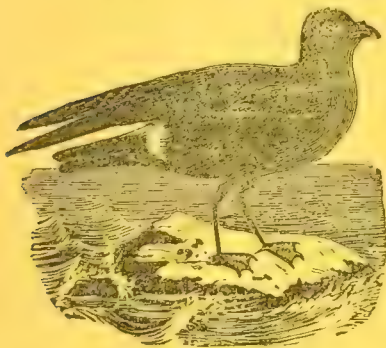
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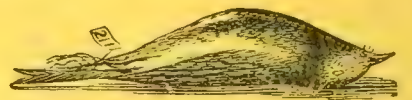
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JOHN C. CAHOON,
Taxidermist,



Scientific Collector of Specimens of Natural
History,

TAUNTON, - - - - - MASS., U.S.A.

I shall collect the greater part of the season of 1890 in Newfoundland and would be pleased to correspond with persons desiring specimens from that country.

Books for Naturalists.

- Ridgway's Nomenclature of North American Birds, \$7.50
 Davies' Egg Check List. A full and complete description of Nests and Eggs, 1.25
 Capen's Oology of New England, 8.75
 The finest illustrated work on Birds' Eggs ever published in this country.
 A. O. U. Check List of N. A. Birds, .50
 Vols. X. and XI. of the O. & O. containing illustrated articles on Taxidermy and Entomology, 2.00
 F. B. WEBSTER, 409 Washington St., Boston.

Birds' Skins for Exchange.

Rare species from the northwest. 400 specimens to dispose of. Franklin's Rosy Gull; Bohemian Wax-wing; Evening Grosbeak; Wilson's Phalarope, etc., in large series. Also a few desirable California birds. Exchange from the southwest particularly desired. None but thoroughly scientific skins given or received.

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Lake Mills, Jefferson Co., Wis.

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Many of these sets are extremely rare, and no discount can be made from list prices. Some sets are accompanied by nests, in which case they will positively not be sold separately. A few of the rarer sets contain damaged eggs, held on account of the scarcity, full particulars will be given on inquiry. Single eggs of many of these and others in great variety.

Frank B. Webster,

409 Washington Street,

Boston.

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BOSTON, MASS., MARCH, 1890.

No. 3.

A Wet Day with the Marsh Hawks.

Every collector of experience, without looking at his field-books, has a fixed date in his mind when the bulk of a certain species will be found breeding. Overhaul your memory, brother-worker, and if you can spare but one day to go after the most eggs of each species, see if it would not be June 4th for the Parula and Prairie Warblers, Feb. 28th for Great Horned Owl, and April 1st for Barred Owls. Others, earlier afield, may secure a big clutch of highly-colored eggs from some young Hawk, the first week in April, or, by lingering, come across an aged *Buteo* covering her two pale eggs the last of May, but your single day of days for the Red-shouldered Hawk is April 20th.

Your memorized date for Marsh Hawks should be May 20th. Hence it was one day late when I decided to go on the 21st of May last year after Harrier's eggs. Now let us look at the record of the last few years and see how our dates agree with our heads in field work. May 21, 1889; May 20, 1888; May 20, 1887; May 17, 1886; May 17, 1885; May 18, 1884; May 20, 1882; May 17, 1881. On June 6, 1880, I found a nest with three young, one pipped egg, and one stale egg—showing the set must have been laid ten days sooner than my earliest record. Between 1875 and 1880 I had no precedents to go by, and find records of sets taken June 1st, mostly with eggs well incubated.

So, early in the morning of the 21st of last May, in an open wagon, with my climber and setter dog trained to point ground-builders, I started to drive seventeen miles to North Stonington, to look after my four or five pairs of Harriers. The light drizzle at starting increased as we covered mile after mile of the highway, until it became a most frightful down-pour. All bird-life disappeared, brooks were soon swollen beyond their banks, and the turnpike was such a river of water that in

front of the farmhouses goslings were noted swimming in the middle of the road. The storm must have been most disastrous to the many flocks of young turkeys we saw. We were forced to take shelter from the deluge more than two hours in a small wayside shed. Our unheralded entrance dispossessed several tenants in the shape of two female Robins, a Phoebe, and a singing male House Wren. The Pewee went off her nest on one of the supports of the shed, and as one of the Robins seemed to go off the same nest, we ordered an investigation. It appeared that the post had been sawn in two, and a shingle slipped through it, that stuck out on each side. On the north side of the shingle was the Pewee's nest with four eggs, and on the south side was the Robin's holding four eggs. Thus, nests of Flycatcher and Thrush were within eight inches of each other. The second Robin had placed her nest on the seat of a Buckeye mower which was on a slight scaffolding overhead. The cup of the nest was normal, but the bottom was so spread out with straw and hay as to nearly fill the seat of the machine.

The Wren, unmated to all appearance, had filled an old Barn Swallow's nest with sticks, and had stuck bunches of sticks in every handy nook and crevice.

Peering out through holes in the back of the shed, we saw what we took to be birds playing on a sheep barn forty rods out in the fields. I made a break through the rain to this outstanding barn and discovered our "birds" to be six young grey squirrels, and in a cranny I saw the warm husks and hair where they had been littered. As the clouds lifted and we backed out from our leaky shed for a fresh start, we saw a few Purple Grackles and some bulky remains of old nests in an immense elm shadowing the farmhouse, and the farmer told us it was the only place for miles around where the Crowbills built.

The rain ceased, but it was afternoon before we began circling the first marsh. From this

and the next bog we drew blanks. Though we fired our guns, tried all known arts, and with our already drenched clothes swept the heavy rain drops from every bush and briar we could not flush a feather. The third bog through which Broad Brook's biggest feeder runs, we found to be wholly under water. While we were wading through a thick and brushy corner, a farmer's voice from out of the depths of the swamp hailed us: "You hain't seen nothin' of a brindled yearlin' heifer?" No, we hadn't, but later we saw the body of the drowned calf caught by the brush in the main brook.

Hopeless and bedrabbled, dog and men, we then drove to our last likely bog, only to have a further instalment of this wet day's hard luck. In vain, by sections, did we apparently cross and re-cross every foot of the marsh. In fact we once emerged on the upland, blown and completely discouraged, unhitched our team, climbed slowly in, and had actually turned around towards home, when my climber gave me such a look of mingled disgust and new confidence which I interpreted, so without a word we fastened our team and hurried back to the old bog which had never failed us before. Five minutes later though intent on my own beat, I happened to look over my shoulder and saw a Hawk start at the very heels of my climber, but behind him, and *after he had slowly passed her by*. I shouted to him and he whirled around, fired, but missed the Hawk. I was delighted at the poor shot, for there were six fine eggs, and there may be another big clutch about May 20, 1890. Indeed this was within two rods of the spot where I got my finest set of seven eggs in 1882.

Taking heart from this bit of luck, and having two hours more of daylight, we drove back to our first bog to sweep it with a long heavy rope. We were quietly knotting the rope on the bank when the male Hawk came quickly around a hill and plumped into the marsh with a cry like a Cooper. Answering its call the female at once took wing and sailed away for her supper. We were holding back the dog, and I had been sitting on the gun to keep my climber from using it; but at this point the dog broke away and dashed into the bog, but came to a stand at the nest. Nor would the Hawk start from her five eggs till we walked up to the nest ahead of the dog, which we would not allow to jump for his usual mouthful of feathers. Now we do not know why the birds lay so close all day, unless from the heavy atmosphere and the depression from

the floods of rain. In the dry weather our dog rarely has failed to point Marsh Hawks, and the birds start before we get within a rod of the nest. This bog was of *sphagnum*, fast filling with young maples, and the nest was big enough to be moved.

No nest held the six eggs; the bog itself was free of trees, but the substratum of *sphagnum* was wholly overrun with a curious matted tangle of dwarfed sheep laurel. The wooded swamp back of the bog was filled with pitcher plant and purple *cypridium* and great clumps of rare wild calla lily (*Calla palustris*). J. M. W.

Nomenclature Impromptu.

The facility with which the irreverent small boy forms an ornithological nomenclature, often astonishes the more initiated. Untrammelled by "system" or in fact any of the paraphernalia of science, he gives his fancy full sway, and evolves names uncouth indeed, but which prove satisfactory for all his purposes. To him the simple appellation "Cotton Tail" seems vastly more appropriate than *Colaptes cafer*.

A knowledge of these absurd common names proves frequently a valuable acquisition. Your dense ignorance (to the small boy mind) of what the "Chippe-ca-ca" or "Toffie" is, may be regretted afterward when you find, perhaps, you have missed securing a nice set of *Parus inoratus*. Many of these local names are taken from the bird's appearance or peculiarities, and are sometimes singularly appropriate. The Lazuli Bunting is the "Blue Canary"; the Russet-backed Thrush is given the name of "fighter," while the Black-headed Grosbeak is quite correctly styled the "Whistler."

A friend of mine, who had begun to collect eggs, with very little knowledge of the birds, astonished me once by the statement that he had found a number of nests of the Red-shafted Flicker *built in the tules*. It did not take long to discover that his Flicker was a Red-winged Blackbird. They are sometimes called "soldier birds."

As I was strolling along a river bottom near Pleasanton one day I asked a youthful egg collector what bird had flown up near us? (it was a California Towhee,) and he replied, "Oh, that's a Brown bird, but that's only what the boys call it, its right name is Ground Thrush." My informant remarked apologeti-

cally that "the little boys round here give most all them birds nicknames."

I have on several occasions heard persons asseverate most solemnly that Mockingbirds, which rarely occur here, were very common in the hills where they live, which struck me as very remarkable until one day I was shown one of the famous singers which I recognized at once as the California Thrasher. Not everyone would know, I venture to say, that the "Big Cat Owl" is what we are pleased to call the Western-horned, nor that the euphonious title of "Monkey-face" belongs to our useful yet long-suffering friend *Strix pratincola*.

Just why the small boy fraternity should call the Western Lark Sparrow a "Tie-tie Robin," or use many other equally peculiar designations is beyond me, but the study of this erratic barbarous nomenclature is not without its compensations—amusement anyway, and perhaps some bits of useful knowledge.

Harry R. Taylor.

Alameda, Cal.

A Kite New to the North American Fauna.

A small lot of kite skins from Florida have recently come into my possession, and with them a specimen of *Ictinia plumbea* (Plumbeous Kite). This bird, which I should judge to be an adult ♂, was taken on Palm Hammock Creek, Palm Hammock, Dade Co., Southwestern Florida, between April 25 and May 10, 1885, by Prof. J. H. Batty, and is entitled to a place in the list of N. A. birds. The only work that I have to refer to is "Ridgway's Manual of N. A. Birds," and for comparison I give his description of both, *mississippiensis* (Mississippi Kite), and *I. plumbea* (Plumbeous Kite), which is as follows:

Common characters. Adults: Uniform plumbeous, becoming lighter (whitish) on head and darker (blackish) on quills and tail; inner webs of quills partly rufous.

a. Adult: Wings lighter than tail, the secondaries hoary whitish; inner webs of quills with indistinct spots of rufous, and outer webs with very indistinct strips of same; tail without white markings. Length 13.00-15.50, wing 10.60-12.30, tail 6.00-7.00. Hab.: More southern U.S., east to Rocky Mountains, north regularly to Georgia, southern Illinois, Kansas, etc., casually, or irregularly to Pennsylvania, Wisconsin and Iowa, south, through eastern Mexico, to Guatemala. *I. mississippiensis*, (Mississippi Kite).

a2. Adult: Wings concolor with the tail, the secondaries black; inner webs of primaries almost wholly rufous, the outer webs with only a trace of this color; tail with about three narrow bands of white, across inner webs. Wing 10.50-12.20, tail 5.60-6.80. Hab.: Tropical America (except West Indies), north to Southern Mexico, south to Paraguay. *I. plumbea*, (Plumbeous Kite).

My example of *I. plumbea* differs from the above description in having the upper parts darker (blackish slate), the neck and head are slate-gray, more sharply defined across the shoulders with lesser, wing-covert region bluish-black; inner webs of quills and the secondaries brownish, no rufous; a longitudinal stripe of white on the inner web at the base of the first and second primary quills, becoming grayish on the others. Shafts of primaries underneath, white at base, becoming brownish at tips (in two adult specimens of *I. mississippiensis*, that I have before me, one from Florida and one from Texas, the shafts are brown); lower parts dark cinereous becoming lighter on neck; upper surface of tail feathers black crossed by three bands of white, on the inner webs, the first near the tip being about .25, the second .40 and the third near the base .60 and uniform in shape; under surface of tail grayish with shafts white half the length. The notch on the cutting edge of upper mandible is so slight as to be scarcely perceptible to the eye. As near as I can measure from the dry skin the length is 14.00, wing 11.50, tail 6.00.

The kite was noticed several days about a marsh before it was shot, apparently catching beetles and other insects as it was seen repeatedly to dart down into the grass. When shot its stomach was empty. Another specimen of *I. mississippiensis* from Florida is rather small, darker, and shows but little trace of rufous on webs of quills. So far as I am able to ascertain, the Mississippi Kite is quite rare in Florida. It is occasionally seen on the islands and keys along the southwest coast of Florida, especially those that lay off the everglades.

John C. Cahoon.

New York, N.Y.

A Set of Five Eggs of Swainson's Warbler.

I have lately received a set of five eggs of Swainson's Warbler (*Helonæa swainsoni*) which were collected by Arthur T. Wayne, near Charleston, South Carolina, on May 7,

1889. The nest was in a cane, six feet from the ground, in a large swamp. The female bird was sitting, but the eggs were fresh. They are of normal shape and color, although they are smaller than usual, as they only measure; .70 x .55; .71 x .57; .71 x .58; .72 x .56; .70 x .57. (The largest egg of this species that I have seen measures .84 x .53, and the smallest .68 x .52).

I have never heard of more than four eggs of this bird being found in one nest, and the set referred to above must be considered the largest (in number) on record. J. P. N.

A List of the Birds of Colorado.

[Continued.]

204. *Leucosticte atrata* (Ridgw.). Black Leucosticte. Winter visitant; found at 5,000 feet (Drew). Its summer range is unknown.

205. *Leucosticte australis* (Allen). Brown-capped Leucosticte. Resident; common. Breeds at 13,500 feet and descends as low as 6,000 feet in winter. I have only seen it in spring and fall during its vertical migrations. Very common at these times in La Plata county.

206. *Acanthis linaria* (Linn.). Redpoll. Noted by Drew only. I have in my possession a wing which I refer to this, taken at or near Pueblo.

207. *Spinus tristis* (Linn.) American Goldfinch. Common summer visitant; migrating far south in winter, Mr. Anthony records it as "common at times" in the vicinity of Denver, while the late Charles W. Beckham* found it "very abundant" at Pueblo. Drew says it reaches 10,000 feet in summer and breeds at 9,000 feet in spring. Trippe did not find it very common in Clear Creek county, and from all accounts it is much more common in the southern and eastern portions of the state than in the central and northwestern. Its eggs are well-known.

208. *Spinus psaltria* (Say.). Arkansas Goldfinch. Found as far north as Denver. Mr. Anthony found it "rare, seen at intervals in winter and summer." Mr. Beckham found it at Pueblo where it appears to be much more common than at Denver. I noted it in La Plata county, where it and the next seem to be about equally abundant. The nidification of this species is very similar to the preceding but rather shows a preference for lower nest-

ing sites. Drew "found several in the willow bushes along the Rio Animas in October," and says it "doubtless breeds." This was in San Juan county, and La Plata is south and west of it.

209. *Spinus psaltria arizonæ* (Coues.). Arizona Goldfinch. Recorded by Anthony at Denver as "rare in summer." I found this species in La Plata county where it breeds. After the young are out they disappear, going up into the mountains, appearing again in October in abundance, when after lingering with us for a few weeks it retires south. Its stay is regulated at this time of the year by the weather, the fall generally hanging on into December and winter only coming on with its heavy snows in January. The same may be said of most of the fall migrants.

210. *Spinus pinus* (Wils.). Pine Siskin. Common in winter at Denver, and probably breeds in the high mountain ranges at 10,000 or 12,000 feet. It is common in the mountains, coming down in winter to the plains, following all the rivers throughout the state. It is not stationary, as many suppose, but in Colorado, at least, makes regular spring and fall vertical migrations.

211. *Plectrophenax nivalis* (Linn.). Snowflake. Entered by Drew upon Mr. Ridgway's authority. I saw it but once in Southwestern Colorado, and judge it rare in the state, except perhaps the northern mountainous portions.

212. *Calcarius lapponicus* (Linn.). Lapland Longspur. A transient visitant and common, appearing in autumn and stopping through the winter. Breeds far north. I would here call the attention of collectors to the probable occurrence of *C. pictus* (Smith's Longspur) in the state. There can hardly be a doubt as to this, but no one has yet reported or noticed it.

213. *Calcarius ornatus* (Towns.). Chestnut-collared Longspur. Recorded by Drew at 5,000 feet. This is the only record.

214. *Rhynchophanes macconni* (Laws.). McCown's Longspur. Transient visitant; common. Noted by all the members, and found everywhere east of the mountains. No doubt it will be found breeding along the northern border.

215. *Pooecetes gramineus confinis* (Baird.). Western Vesper Sparrow. Common summer visitant, from the plains up to 13,000 feet, and breeding throughout its range.

216. *Ammodramus sandwichensis alaudinus* (Bonap.). Western Savannah Sparrow. According to Anthony, a transient visitant; tolerably common, at Denver. I have noted it at

* Auk, Vol. IV, No. 2, April, 1887.

both forts, Lyon and Lewis. At Lewis it was abundant during the migrations and I believe it breeds in the mountains, but not on the plains. A few were seen in summer but not as common at 8,500 feet as at 12,000 or even 10,000 feet. I have taken no nests in the state, and know of none having been taken.

217. *Ammodramus bairdii* (Aud.). Baird's Sparrow. Rare in western portions of the state, tolerably common on the plains, and breeds in numbers, the nest being upon the ground and usually in small colonies; general habits much like *P. ornatus*. Common in Southwestern Colorado, and winters from Northern New Mexico and Arizona south, a few may even winter along the southern border.

218. *Ammodramus savannarum perpallidus* (Ridgw.). Western Grasshopper Sparrow. Tolerably common and breeds. Said by Drew to breed from the plains up to 5,000 feet, but it goes much higher than this, and I think does not breed on the plains. In Colorado this bird breeds early in June, depositing five eggs. It is a fact worthy of note that the Yellow-winged, or Grasshopper Sparrow has not yet been split up into many varieties as is the case with so many of our species, but I predict that the day is not far off when this will be done, and it seems with far better cause than with some of our present varieties.

219. *Chondestes grammacus strigatus* (Swains.). Western Lark Sparrow. Summer visitant; common on the plains and on the tablelands in the mountains. Not as abundant in Southwestern Colorado as in the rest of the state. Nests "on the ground," eggs resembling the Red-wing Blackbirds in markings; in shape, rounded. At Fort Lyon I found this species very abundant and breeding in trees and bushes, even as high as twenty feet. I have only known it to breed in trees along river bottoms, which are liable to be overflowed and in such places none of the birds nest on the ground, but place their nests above the debris left by the receding waters of the spring before, which serves as an excellent water mark.

220. *Zonotrichia querula* (Nutt.). Harris's Sparrow. Rare; probably winters occasionally in Southwestern Colorado. Recorded by Mr. Charles Wickliffe Beckham* from Pueblo. He says "On October 29 (1886) I shot a male of this species in the autumnal plumage of the young bird. It was in company with a lot of Juncos and Tree Sparrows. No others were

seen. This, I believe, considerably extends the known range of Harris's Sparrow, as I find no 'record' west of Kansas or Nebraska."

221. *Zonotrichia leucophrys* (Forst.). White-crowned Sparrow. Common summer visitant. Found in the mountains throughout the summer and breeds above 8,000 feet, below which it is not known to breed, and is only seen during the migrations at this altitude. When migrating, the bushes skirting the fields and fringing the streams are alive with these sparrows, and their cheerful song is heard in every direction. The nest is placed upon the ground in bushes and the eggs are four and often five.

222. *Zonotrichia intermedia* (Ridgw.). Intermediate Sparrow. This is the form most common in Southwestern Colorado, although I have secured specimens of this and the preceding, from the same flock. Anthony gives it as a transient visitant; common at Denver, and it appears common throughout the mountain districts of the state. Supposed to breed only north of the U. S.

223. *Zonotrichia albicollis* (Gmel.). White-throated Sparrow. Rare, only one record-known, that of Charles Wickliffe Beckham in the Auk,* who shot a male on October 24 (1886). "The specimen was unusually small" and in all probability was a straggler. It was taken near Pueblo. The nest and eggs are not distinguishable from the two preceding species.

224. *Spizella monticola ochracea* (Brewst.). Western Tree Sparrow. Observed by Trippe and Anthony, the latter recording it as a winter visitant; abundant. Drew gives it at 9,000 feet, while Trippe records it 8,500. I found it in Southwestern Colorado at 8,500 feet and in spring somewhat higher. It will no doubt be found to breed high up in the mountains.

225. *Spizella socialis* (Wils.). Chipping Sparrow. Anthony gives this species as rare at Denver, I found it tolerably common in Southeastern Colorado and it is found in less numbers as you approach the mountains, and merges into the next at the foot-hills. This does not range as high as the western variety, and probably 7,000 feet is as high as it is found.

226. *Spizella socialis arizonæ* (Coes.). Western Chipping Sparrow. This variety is abundant from the foot-hills westward. It reaches even 10,000 feet, and nests in bushes in preference to trees, and usually not over ten or twelve feet from the ground. Drew gives its

* Auk, Vol. IV, No. 2, April, 1887.

* Vol. IV, No. 2, April, 1887.

anxiety I broke away the walls of the hollow can be imagined, but imagination fails to picture my feelings on finding the inmate to be a great gray spider nearly as big as my fist. That spider no longer roams the solitude of that creek bottom.

Stub after stub felt the blows of my trusty stick, but for some time nothing resulted. Many a new-looking hole was broken into in hopes of a Chickadee or Nuthatch only to be found to contain a large chunk of emptiness. At length on breaking into a hole four feet up a gum stub, a bird was found on the nest inside and again visions of Tufted Tit presented themselves to my mind. But when I got right down to it a little Carolina Chickadee fluttered off her five fresh eggs, not however until I had touched her with my hand. This was very likely a second laying of a pair from which I took a set of five on April 19th.

Another round of blank trees until a Brown-headed Nuthatch was seen to go into a hole about ten feet high, in a small rotten willow. Broke it off carefully, and lowered the top until I could get at the hole—which was about full of young Nuthatches. I propped up the sticks as securely as I could in some bushes growing alongside, and have no doubt that the brood was successfully raised.

That's all—except one of the longest, hardest, old-time tramps back home after an absence of eleven hours, with nothing to eat and nothing stronger than creek water to drink during the interval. *H. H. Brimley.*

Raleigh, N. C.

Nesting of the Red-breasted Nuthatch in Orono, Maine.

Having seen very few notes on the nesting of this species (*Sitta canadensis*) I thought my observations for the spring of 1889 might be of some interest. I have found this bird quite abundant in the woods for several winters past; but, as I have seen only one or two individuals in the late spring or summer—before this year—I had no idea that it nested here. The reason of my seeing more this spring may be accounted for by my having to go to the woods daily.

On the 7th of April, while in a wood-lot, my attention was attracted by a tapping sound which I thought was occasioned by some Woodpecker. I followed the sound, and soon saw a Red-breasted Nuthatch at work on the trunk of a dead tree, without branches,

about twenty feet from the ground. I supposed of course that it was feeding, but noticed that it kept continually at work at one place; and also seemed very persistent in its work and made much more noise than any which I had watched feeding. As long as I remained quiet the bird continued to work; but when I moved about close to the tree it flew to a neighboring tree. Before I had moved away ten feet, however, it was at work again.

On the 8th of March the bird was still at work, and I noticed that the hole, which it had begun, was almost a perfect circle. I then made up my mind that this was to be a nest. On this day I also found another bird at work on a similar tree about thirty feet from where the first one was laboring, and afterward found several others, examining and testing the quality of different trees; but as only two turned out fruitful my notes will be confined to the description of these. On the afternoon of the same day I was disgusted to see a crow fly down and seize the bird while at work on the nest found the day before. I then devoted my attention to the one found in the morning, which turned out better. The female seemed to start the work, but after the hole was well started the male did his share. They kept constantly busy as long as everything was quiet, but if an intruder made much noise in approaching they would stop work at once. After they got well inside, so that they could detach comparatively large chips, they would carry them some twenty or more feet from the nest before depositing them. They always took pains to scatter them as much as possible. The lining of the cavity was begun on the 25th of the month, and I noticed that the male had nothing to do with this. If he brought any material the female always relieved him of it at the entrance to the nest and carried it inside herself.

On May 2d I thought from appearances that the female was setting, as the male was feeding her, while she remained in the nest. I do not know whether the male took his turn in setting or not. The next morning, as certain reasons prevented me from taking the nest, and fearing that the eggs would become incubated, I struck the base of the tree and drove the bird from it. This was repeated three times that day, and after that neither bird was seen again. A section of the trunk was cut out on the 6th of the month and lowered to the ground. I proceeded to cut away one side in order to get at the interior.

Upon looking into the nest what was my surprise to find it almost empty. I thought I would take out the lining for examination; and, proceeding to do so was again surprised to hear egg shells breaking. I then made a close examination and found three eggs and the remnants of two others. The eggs were completely buried in the nest, there being a layer composed of strips of bark as much as a quarter of an inch thick over the eggs.

The second productive nest was found nearly completed the 3d of May, and in a situation similar to the first. On the 10th I noticed the birds lining the nest. On the afternoon of the 13th, not having seen the birds since the 11th, and fearing that they had deserted the nest, I climbed a tree close by and cut open the nest. I found two fresh eggs, and just as I was about to take them the female bird appeared. I decided to leave the eggs to see if the birds would not return and complete the set. The next morning I was much pleased to find the bird back on the nest—I could easily see her from the ground since cutting into the cavity. The bird was setting on the 16th, so the morning of the 17th found me on hand with the necessary appliances for getting the nest. Upon climbing up I found that it contained only three eggs, but it was a complete set as incubation had commenced.

The trunks in both cases were so thoroughly decayed that they furnished no support, so the nests were secured by fastening ropes about the trunk just above the nest, attaching them to a neighboring tree. This tree was then ascended, the cavity filled with cotton to prevent damage to the eggs, and then a section containing the nest was sawed off and lowered to the ground.

The principal points of interest in regard to the nests and eggs are as follows:

The entrance to the first nest was some twenty-five or thirty feet from the ground, and within three feet of the top of the trunk. The diameter of the entrance is one and three-eighths inches; horizontal depth, three inches; vertical depth, six inches. After the entrance was completed the inside was made much larger, like the nests of other birds which build in similar situations, the diameter of the interior of the nest being two and three quarters inches. The lining, which consists almost entirely of fine strips of bark, is about an inch in depth. It also extends upward around the walls of the nest for another inch, making a very neat and warm abode.

The three eggs saved are of a roseate-white color, and covered quite thickly with reddish-brown spots, varying in size from those almost imperceptible to those larger than a pin head. These spots are thickest at the larger end of the egg. They measure: .56 x .47, .55 x .47, .56 x .47.

Nest No. 2 was situated about thirty-five feet from the ground. Its dimensions correspond very nearly to those of the former.

The complete set of three eggs shows great variation in markings. The ground color and the color of the spots are the same as in the first set, but the spots in this set are very fine, and in eggs No. 1 and No. 2 are very abundant, almost running together at the larger end, forming a dense ring. Egg No. 3, which was laid after the nest was torn open, when at a distance of two feet from the observer, seems to be pure white; but upon closer examination it is found to be sprinkled with exceedingly fine and pale spots. The larger end is quite thoroughly covered. These eggs show a little more variation in dimensions than those of the first set, being respectively: .60 x .46, .59 x .46, .62 x .47. R. H. Fernald.

Orono, Maine.

A Series of Eggs of the Black-poll Warbler.

The eggs of the Black-poll Warbler (*Dendroica striata*) present as much variation in size, shape and coloration as those of any of the Warblers. They vary in shape from ovate to elongate ovate, while the ground color runs from white to creamy and pinkish-white, with a rare phase which shows a light greenish-white. The series now before me, consisting of seventeen sets, and described below, shows in detail the curious types of their markings and coloration.

The nest is a beautiful structure. Those that I have (over fifteen in number) show but little variation in their construction, except that some are much more copiously lined with feathers than others. Perhaps the similarity of these nests is due to the fact that they all came from one locality, and that the birds naturally used the same materials.

A typical nest (so far as can be selected from those before me) may be described as follows: Outside depth, 1.75; inside depth, 1.10; outside diameter, 3.75; inside diameter, 2.00. Composed of grasses, roots, a little lichen, and a few small twigs of spruce fir.

Lined with fine grass, and over this is placed a thick lining of soft white feathers, apparently belonging to the domestic goose. The roots and grasses are mostly dark, and the contrast of the pure white feathers with the remainder of the nest presents a beautiful effect. When seen with the eggs in the nests nothing prettier can be imagined.

They were all found in spruce trees. One of them was only a foot from the ground; another was eighteen inches; a third was two feet up; a fourth three and a half feet; two more were each four feet high; five were five feet up; two others were seven feet from the ground; another was eight feet; and still another was ten feet high.

Set I. June 12, 1877. Grand Manan, N.B. Five eggs. Grayish-white, speckled and spotted, almost exclusively at the larger ends, with olive-gray and bistre. The markings form indistinct wreaths: .73 x .55; .70 x .55; .73 x .55; .71 x .55; .68 x .54.

Set II. June 12, 1885. Grand Manan, N.B. Five eggs, fresh. White, speckled and spotted with burnt umber and olive-gray. The markings are much heavier near the larger ends: .68 x .50; .69 x .52; .69 x .51; .68 x .51; .68 x .49.

Set III. June 19, 1888. Grand Manan, N.B. Five eggs, incubation commenced. Bluish-white, heavily spotted, almost entirely at the larger ends, with olive-gray and burnt umber: .74 x .53; .74 x .53; .72 x .53; .73 x .52; .74 x .54.

Set IV. June 19, 1888. Grand Manan, N.B. Three eggs, incubation commenced. Bluish-white, spotted and speckled, chiefly at the larger ends, in the form of indistinct wreaths, with olive-gray, bistre and burnt umber: .73 x .54; .74 x .54; .73 x .53.

Set V. June 13, 1885. Grand Manan, N.B. Five eggs, fresh. Light creamy white, heavily speckled and spotted with russet, burnt umber, and olive-gray. The markings are over all the surface, but are heavier at the larger ends: .71 x .53; .70 x .53; .71 x .54; .69 x .52; .68 x .52.

Set VI. June 18, 1887. Grand Manan, N.B. Four eggs, fresh. White, heavily spotted chiefly near the larger ends, with olive-gray and burnt umber: .73 x .53; .73 x .51; .79 x .52; .71 x .51.

Set VII. June 18, 1887. Grand Manan, N.B. Four eggs, incubation commenced. Three of them have a pinkish-white ground color, but the fourth is white. All of them are spotted and speckled with russet, more heavily near the larger ends. There are also a few spots of lilac-gray: .76 x .53; .75 x .53; .77 x .53; .76 x .54.

Set VIII. June 20, 1888. Grand Manan, N.B. Four eggs, fresh. White, heavily blotched and spotted with drab. There are also a few spots of bistre and olive-gray. The markings are heavier near the larger ends, but the surface of the eggs is more evenly covered with markings than in any other set in the series: .69 x .47; .70 x .48; .69 x .49; .69 x .48.

Set IX. June 18, 1889. Grand Manan, N.B. Five eggs, incubation begun. Pinkish-white, heavily spotted, chiefly at the larger ends, with bay, hazel and drab-gray: .75 x .54; .74 x .54; .71 x .54; .73 x .54; .73 x .54.

Set X. June 19, 1883. Grand Manan, N.B. Five eggs, incubation advanced. Grayish-white, spotted and blotched with russet and olive-gray. There are also a few spots of bistre on one of the eggs, and the markings are heavier near the larger ends: .75 x .53; .77 x .54; .75 x .55; .75 x .55; .75 x .54.

Set XI. June 18, 1887. Grand Manan, N.B. Five eggs, incubation commenced. White, spotted and blotched with russet and burnt umber, and a few specks of olive-gray. Although the markings are well scattered over all the surface of the eggs, they are heaviest at the larger ends: .79 x .50; .78 x .53; .76 x .53; .78 x .53; .79 x .54.

Set XII. June 20, 1887. Grand Manan, N.B. Five eggs, incubation commenced. Grayish-white, speckled, spotted and blotched with raw umber, russet, and a few specks of olive-gray. The blotches are nearly all at the larger ends, but the other markings are scattered all over the surface: .69 x .51; .70 x .51; .71 x .53; .71 x .53; .68 x .51.

Set XIII. June 21, 1889. Grand Manan, N.B. Four eggs, incubation commenced. White, speckled and spotted with russet and burnt umber, nearly all at the larger ends, and with a few markings of olive-gray: .69 x .53; .70 x .54; .69 x .54; .71 x .54.

Set XIV. June 13, 1887. Grand Manan, N.B. Five eggs, incubation commenced. Grayish-white, heavily blotched, chiefly at the larger ends, with drab and burnt umber. There are also a few specks of olive-gray: .73 x .54; .74 x .54; .75 x .54; .75 x .54; .75 x .54.

Set XV. June 21, 1888. Grand Manan, N.B. Four eggs, fresh. Greenish-white; three of the eggs are profusely speckled with mouse-gray. At the larger ends the specks (there are no spots) become confluent. The fourth egg is speckled all over (more thickly at the larger end) with tawny-olive: .74 x .54; .70 x .54; .70 x .52; .71 x .54.

Set XVI. June 11, 1885. Grand Manan,

N.B. Five eggs, fresh. Greenish-white, spotted and speckled, more heavily at the larger ends, with burnt umber and drab: .71 x .52; .68 x .49; .70 x .51; .71 x .51; .65 x .48.

Set XVII. June 17, 1885. Grand Manan, N.B. Four eggs, fresh. Greenish-white, speckled with mouse-gray. Near the larger ends the markings are much heavier, where they form indistinct wreaths: .68 x .54; .68 x .54; .69 x .54; .70 x .54.

J. P. N.

Winter Notes from Cornwall, Vt.

There seems to be in this locality an influx of winter birds, which, as regarding the number of different species present and the abundance of some of them, furnishes a more varied and interesting study of bird life than this period of the year has furnished for several seasons.

Besides those birds which are resident with us, although of not less interest, yet we are especially given at this time of the year to the study of those which come among us only during the winter months, which gives us only a limited time to make ourselves acquainted with their habits. The most conspicuous among these visitors from boreal regions, is the Snowy Owl (*Nyctea nyctea*). Erratic in their movements one cannot safely say when they will or will not be seen. I can note three instances thus far this winter of their either being seen or captured. One was seen Nov. 13, but was not taken. One was captured Dec. 8, and the third was taken in the same locality and about the same time as the second. I have heard of others being seen but cannot vouch for the truth of the statement, except that so conspicuous a bird in regard to size and color would not easily be mistaken.

In comparing these notes with those of the two winters preceding I find that in 1888 and 1889 I have not a note on this owl, while 1887 and 1888 furnished me notes on six. In their migrations through this locality they seem to favor the lake shore and along the wooded banks of the stream.

The Red-poll Linnet (*Acanthis linaria*) is another winter visitant of whose appearance we cannot always speak of for a certainty. In 1888 they came in large numbers, although they did not arrive until the spring months, the first being observed on March 6th. They remained in abundance during that month and April, the last ones being noted on May 1st. The winter of 1888 and 1889 did not furnish

me a note on this species, while this season they are exceedingly common.

They were first seen Nov. 14, making the extreme dates at which I have seen them in this locality Nov. 11 and May 1. The Pine Linnet (*Spinus pinus*) which generally appears in greater or less numbers, often mingling with the Red Poll, has been watched for with interest but has not been noted thus far.

The Snow Bunting (*Plectrophanax nivalis*) has been with us constantly since December, although not near as common as usual.

The Pine Grosbeak (*Pinicola enucleator*) has played a very conspicuous part among our winter visitors. It has appeared in such numbers and has been so universally distributed as to call forth many remarks from disinterested persons who could not help but notice this large and handsome finch when it comes around their door at a time of the year when the trees seem to them so barren of bird life.

They were first noted Nov. 15th. Upon turning to my note book I find that the winter of 1888 and 1889 did not bring with it any of this species as far as my knowledge goes, while 1887 and 1888 gave me only three specimens.

When shot at, or otherwise disturbed, they will rise with a sharp cry of alarm and after circling around for a few minutes will often return to the same place from which they were started.

The Red Crossbill made its first appearance on Nov. 20, 1889, although not abundant, as there are no tracts of coniferous trees in this immediate vicinity. I have examined specimens in the Museum of Middlebury College (all collected on the Campus) which have the following dates: Feb., 1884, April 11, 1884, June 28, 1884, with the suggestion that the June birds were breeding.

The year 1888 furnished me one note; June 16, three specimens seen in the same vicinity and positively identified by A. D. Mead.

White Winged Crossbill (*Loxia leucoptera*) although not as common as its near relative of the crossed bill, yet it has made its way from the north to help enliven the monotony which the bird fancier feels during a long cold winter when a greater percentage of his feathered friends are absent in their southern homes. I collected a ♂ of this species Jan. 3, 1890.

1888 furnishes a note of a pair of these birds, the ♀ being collected Feb. 27.

Hawk Owl (*Surnia ulula*). This Owl is certainly rare in this vicinity. One was collected during the winter of 1884, and this winter

brings with it one, which was seen and well identified Nov. 2, 1889.

The welcome voice of the Shore Lark was first heard Feb. 3, 1890. Owls have been common and the winter has been one which has furnished many notes of interest.

C. H. Parkhill.

Cornwall, Vermont, Feb. 8, 1890.

A Discussion of the Terms Used to Denote the Relative Abundance of Birds.

It seems to be a very perplexing problem among many ornithologists how to treat the relative abundance of birds, and the subject seems to be one of the yet unsolved questions, although there has been a vast improvement during the last few years.

Ten or fifteen years ago the ornithologists' vernacular describing the relative numbers of birds was in a most chaotic state, best understood by reviewing some of the terms most used at that time, for example, "rather common," "a few," "not many," "a fair sprinkling," etc., which if taken literally mean either nothing at all, or are so ambiguous that they convey no lucid idea of the author's meaning.

To the early efforts of the "A. O. U.," as seen in the blanks prepared for the record of migrations, and later those issued by the Agricultural Department, we owe much of the present order of systematic nomenclature of terms, and without question they are the best that have yet been used, and in most cases they are as explicit as is practicable, although the term "accidental" is sometimes necessary, and like the other four has the advantage of expressing everything desired to be known in a single word.

Although these terms of "abundant," "common," "tolerably common," and "rare," are certainly good, it seems necessary to give them some further modification, for to affirm that a certain hawk and a certain warbler are both common does not give an adequate conception of the relative abundance of each species. In other words the term does not modify the relative difference in numbers between the two birds, but describes the ratio existing between birds of the same family or group, or between birds governed by the same conditions of existence; that is, it cannot be expected that there would be as many hawks as there are warblers, because, in a measure, these warblers and other small birds constitute

the food supply of the raptorial, and therefore, if the contrary were true, the whole race of hawks would be in great danger of extermination as soon as each had devoured its allotted sparrow. A good illustration of what I mean may be found by turning to any of the numerous local lists of recent date, and the following extracts taken at random will serve as good types:

"American Goldfinch. Resident; common."
"Pine Siskin. Winter resident; rare." "Song Sparrow. Resident; abundant." "Lincoln's Sparrow. Summer resident; rare." "Cooper's Hawk. Resident; common." "Red-shouldered Hawk. Resident; tolerably common."

Thus, in the case of the two *Spinidae*, we readily grasp the author's meaning when he classes one as common and the other as rare, because we know that both species have similar habits, and one is rare only in comparison to the other.

The same applies to the two Song Sparrows. One is rare when compared with the other, but a comparative rarity can not be drawn between them and the goldfinches, inasmuch as the habits of the two genera are dissimilar, for one is highly gregarious in its characteristics, and the other is usually found in pairs, or at most in family squads, so that though one might, on a winter's day, see ten Siskins to one Song Sparrow, that fact alone would not admit the reversion of the terms. viz.: to call the Pine Finch common and the Song Sparrow rare, although in actual numbers it would be true. On this ground the relative abundance of the Song Sparrow and Finch can not be estimated, as both have equal right to the same modifying term.

In the case of the two raptorial the rule of family comparison is the same, but when compared to the other birds, even to the Song Sparrows, which, like themselves, are usually non-gregarious, it loses all force. One feeds upon seeds and insects, of which there is a varied and never ending supply, capable of supporting a large number of individuals, but the other feeds on the birds themselves (to a greater or less extent), and therefore the laws governing the existence of each are entirely unlike, therefore we might see one hawk to a dozen sparrows and still class both under the same heading when referring to either as being rare or common.

On this account it is necessary to make some distinction between birds of gregarious habits and those which are disposed to pursue solitary

lives and between those whose habits are in other manners radically different. The divers and grebes, which do not flock, can not be treated in the same manner as the ducks and geese, or the gulls, puffins, beech birds, etc.

The herons and raptorial birds may be classed as solitary birds, while most of the gallinaceous birds and the doves are social in their ways.

The smaller birds can be divided into two classes as social and solitary, and, save in some particular cases, be treated in this way when being considered as rare or plenty.

It may be contested that all the birds mentioned, previous to the last group, are nearly all large or in other ways especially conspicuous, while the smaller birds are very apt to be more easily overlooked, but on the other hand, if not so easily seen, it is necessary to base any statements as to their plentifulness upon a larger numerical scale on account of the conditions governing their existence, which are far more favorable, as alluded to in regard to their resources of food, etc., and as there is a greater means of supplying their wants it is but fair to presume that there is more life to sustain, for in this case the demand would surely keep pace with the supply. On these grounds, other things being equal, a larger number of individuals would be required to warrant a species being called common than with the birds previously discussed.*

The fifth term of "accidental" needs no comment, as it certainly expresses its full meaning, and is universally understood.

Harry Gordon White.

Gloucester, Jan. 28, 1890.

Wanderings, No. 6.

An article in a recent number of *Nature*, by Mr. Chas. Hallock, on Mr. Andrew Downs, of Halifax, Nova Scotia, the founder of the first American Zoo., and now in the 80th year of his age, carries me back to the autumn of 1889, when the wanderings of a vagrant naturalist editor, looking for rest, recreation and something interesting for his readers, rolled me upon the shores of Nova Scotia.

I landed in the city of Halifax, from the steamship of the same name, on Sunday evening, September 15th, and as I was expected by some of my correspondents, Mr. Downs and his fellow-taxidermist, Mr. Egan, were to have

greeted me as I landed. But the form and feature of each of us were unknown to the other, except through the medium of the photograph, and as I had, as the vessel neared the wharf, caught a glance of a familiar face, and with the longing of a stranger in a strange land had hastened to that one as a harbor of refuge, and was piloted through the ordeal of the custom house and to a hotel, I missed meeting them on that occasion.

On the next morning, however, I sallied forth in quest of some congenial spirit, and not finding the one with whom I felt best acquainted, my afterwards firm friend Mr. Harry Austen, I naturally turned my steps toward a taxidermist's establishment, and brought up at that of Maj. Thos. Egan, well known to many of my readers as a member of the Canadian Rifle Team, on its recent English tour.

Yankee cheek, and a feeling of *camaraderie* between fellow-spirits, soon made us acquainted, and we were busily engaged in examining the many beautiful reproductions of our feathered friends, which had emerged from Mr. Egan's hands, when a cheery voice from the outside was heard saying, "That's him, I know, I hear him," and my hand was soon grasping that of Mr. Downs, and my eyes looking upon his smiling face, framed with its snow-white hair and beard; a face I shall not soon forget, even without the aid of his likeness, in the shape of a photo taken with his faithful Scotch deerhound by his side and his Skye-terrier in his lap, both beautiful examples of these beautiful races of the canine family, a memento doubly valuable as a gift from himself, and bearing his autograph, and which now looks down upon me from its frame upon the wall of my room as I write these lines.

His first remark was, "Where did you go to last night, and why did you not come to my house?" and in spite of my protestations that I would be more out of the way at my hotel, and that I did not want to put anyone to any trouble, he insisted upon my coming to his house and making it my home during my stay. What could one do, in the face of such hearty hospitality, and backed by the assertion "That I would be no trouble, that he would be only too glad to have me, and that he wanted to have me where he could talk to me," but to accept? And I soon found myself, bag and baggage, installed in a comfortable room at his home, which I made mine during my two weeks' stay, and talking about the birds which were grouped in cases about his den, a never-

* The gulls, ducks and geese may possibly be exceptions to this rule.

failing topic which engrossed us whenever we were together, and his companionship, though many years divided us, and his kindness will long be remembered by me as prime factors in making my stay there numbered among the "red-letter days of my life."

While sitting here in his studio, surrounded by his birds, his friends and companions; beautiful paintings, the handiwork of his two accomplished daughters; and his many mementoes of visits of friends, among whom are those of royal blood; and of his travels, one of which was made at the request of Her Majesty, his adopted sovereign (for Mr. Downs was born beneath the stars and stripes) and which was made in a ship-of-war placed at his disposal by royal mandate; he recounted to me the story of his life, so well told by the facile pen of Mr. Hallock, and I then thought, while he told of his many trials and disappointments before success crowned his labors, in endeavoring to fill his grounds with useful and instructive examples of the animal life of the world, that the name of this pioneer of natural history should be in the mouth of every admirer of the birds and animals which he loved so well, and upon which he lavished the best years of his life and the proceeds of the toil of his hands and brain; and that the story of his works should be told to the children for whose instruction he labored for so many years.

Among the denizens of his aviary besides the old white Cockatoo, whose heart I won on the first day of my stay, and whose reiterated "How are you, How do you do," rings even now in my ears, and whose eldritch scream woke the whole house whenever I left him, is a specimen of the Purple Gallinule (*Ionornis martinica*) taken in Nova Scotia, and which is, I venture to say, the only one in the country kept in captivity.

It was, when I left there, happily carrying on its existence within the narrow limits of the little room surrounded by its wire net-work, and at night regularly perching upon the spruce tree which stands in the centre of the cage, crouching upon the forks, and spreading over the twigs the long and supple toes, intended by Dame Nature for supporting it upon the net-work of aquatic plants.

Perhaps at some future time I may tell you of some of the other denizens of this fascinating place, and of some of the other acquaintances which I made under the care of the good old man.

F. A. Bates.

Evening Grosbeaks.

AT SUMMIT, N. J.

After reading the accounts in the February O. & O. of the unusual drift of the Evening Grosbeaks into the northeastern states, I thought I would add my experience to the list. On March 6, 1890 I was exceedingly surprised to see a flock of from ten to fifteen of these birds feeding on last year's dogwood berries. They were exceedingly tame and allowed me to approach and stand under the tree where they were for quite a little while, being within about eight feet of me. They were mostly females. I was unable at the time to secure any for my collection, and so had to content myself by merely observing them. There were about eight inches of snow on the ground and the air was quite sharp. This is the first time I have ever seen any around here.

Wm. Oakley Raymond.

AT ORONO, MAINE.

On the morning of February 28th, while passing not far from a river, my attention was attracted by the note of a bird which seemed to come from the opposite side of the river. I imitated the sound, and soon a bird flew across the river, and lit in a tree quite near me. I recognized it as a beautiful male Evening Grosbeak.

I think this is the first appearance of this bird in this state.

Robert H. Fernald.

IN MASSACHUSETTS.

Seven Evening Grosbeaks were taken at So. Natick (1 mile from the Wellesley locality). They were very tame, flying only a short distance at the report of a gun, and were engaged in feeding upon maple buds.

A. P. Morse.

March 11, 1890.

Two Evening Grosbeaks, ♂ and ♀, taken March 3, 1890, at Maple St., West Roxbury, district, Boston, Mass., by Arthur L. Reagh. Both birds were seen and one shot. The other came back in about twenty minutes and was secured.

The Cowbird.

The Purple Finch should be added to the list of birds imposed upon by the Cowbird. I have a clutch of Purple Finch's eggs, containing a Cowbird's egg.

A. H. Alberger.

Ithaca, N.Y.

THE
ORNITHOLOGIST^{AND} OÖLOGIST

A Monthly Magazine of
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS,
THEIR NESTS AND EGGS,
and to the
INTERESTS OF NATURALISTS.

Under the Editorial Management of

FRANK B. WEBSTER,	Boston, Mass.
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FRANK A. BATES,	Boston, Mass.

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Editorial.

The great majority of oölogical collectors are honest, and when they send out eggs which are not correct it is owing to ignorance or to want of proper identification. Unfortunately, however, there are those who are positively dishonest, and whose "errors" are the result of a deliberate intention to defraud.

In this class we must place the collector who sent out eggs of the common English Sparrow (*Passer domesticus*) and called them on the data Fox Sparrow (*Passerella iliaca*), and also sent Osprey's eggs for Gyr Falcon's! There was no mistake about that, and it must have been done designedly.

The same man sent out eggs of the Lapwing (*Vanellus vanellus*) for those of the American Golden Plover (*Charadrius dominicus*), and wrote on the data that they were collected by his collector on board of U. S. Steamer *Corwin* on its voyage to Alaska! He had no collector on board of that or any other vessel, and deliberately tried to defraud.

His latest exploit was taking eggs of the common Kingbird (*Tyrannus tyrannus*) and by introducing a thick solution of vermilion water-color paint inside and through their blow holes they were made to assume somewhat of the roseate or pinkish hue which is

characteristic of the Gray Kingbird (*T. dominicensis*), and that is what he called them.

Another man sent a set of Common Dove's eggs (*Zenaidura macroura*) and called them eggs of the Poor Will (*Phalaenoptilus nuttalli*), but he forgot to rub out the Dove's number before marking the eggs as Poor Will's!

A western collector sent a set of eggs of the Common Tern (*Sterna hirundo*) and actually had the impudence to label them Woodcock (*Philohela minor*).

An eastern man took a set of Bank Swallow's eggs (*Clivicola riparia*) and decorated them with minute spots of oil paint of a reddish-brown hue, and then called them Canadian Warbler (*Sylvania canadensis*).

Of the men who procure European eggs and pass them off as genuine eggs of closely allied North American species it is not necessary to speak, as this is an old game and the parties who practise it are well known.

These dishonest practices are a disgrace to those who pursue them, and if it can be stopped in no other way, they should be exposed to warn all honest men of their true character.

Correspondence.

C. J. Maynard is Good Authority.

Editor O. & O.:

I have just now found time to look through Maynard's eggs of North American Birds, which I received from you just before starting south. I consider it the best book of the kind ever published. It is condensed down into a convenient size to use for reference and as the price is very reasonable I do not see how anyone interested in oölogy can afford to be without it. In looking through the water birds I was very much pleased at the accuracy of Prof. Maynard's description of the nesting of the Common, Arctic and Roseate Terns. He says: "The nesting habits of the three last given species serve to identify the eggs in a measure. No. 70 nests in sand hills, but seldom constructs much of a nest, a little grass only being used; No. 71 lays on the naked sand without a nest; No. 72 in the sand-hills and constructs a more or less elaborate nest of sticks." I have had a vast experience in observing the nesting habits of these three terns on our N. E. coast, and it coincides exactly with Prof. Maynard's remarks.

The plates are accurately drawn, especially those of the water and game birds. Taking it as

a whole the work reflects much credit upon the author, *who has done more to advance the study of oölogy in North America than any other living naturalist.*

John C. Cahoon.

New York, N. Y., Feb. 26, 1890.

Editor O. & O.:

In this land of long summers and sunny days we have practically no small birds. The Eagle, the Hawk, the Kingfisher and the Crow are all represented, but the merry warbling birds are singularly absent. The few small birds that make their homes here are songless and dull in color. Birds of bright plumage are rarely seen.

No two men seem to agree as to the cause of the scarcity of small birds. Some say it is lack of food, but this can not be as wild berries and seed grasses are abundant. The Eagles and Hawks are so plentiful that their deadly work of extermination is the only cause. The only birds that make a fight for existence are the crows, and they are the losers in many a battle. We shall have to be in a land without birds until the country becomes better settled.

Robert G. Mackay.

Vancouver, B.C.

Editor O. & O.:

Through the kindness of Mr. William Thompson at 383 Washington St., Boston, I was shown a very beautiful partial albino specimen of our common Robin (*Merula migratoria*). It was shot at Farmington, Me., from a flock of normal colored birds of the same kind about Nov. 1st of last year (1889) by Mr. Alexander Forsythe, a resident of the above place. To describe the bird roughly I might say, breast, mottled-white and reddish-brown; throat, primaries, secondaries and central tail feathers, white, the entire upper surface with this exception, of a *very light* chocolate color.

Partial albinos of our well-known Robin are not of rare occurrence, and from my experience occur as often in this species as in any other, yet it strikes me such freaks of nature are worth recording.

Shelley W. Denton.

Wellesley, Mass.

On March 8th, while duck shooting at Squantum (7 miles from Boston) I had the good fortune to secure a Wilson's Snipe. On severing it I found it to be a ♀, very lean, and nothing in the crop except a very little greenish substance resembling eel grass. It flew

within five yards of me and lit in a snow bank, where I easily procured it with dust shot.

S. K. Patten.

Editor of O. & O.:

Allow me to add my mite in regard to that "cheeky Cowbird." That is, a set of four Catbirds which contained two of the Cowbird; taken near Saginaw, Mich., in 1887.

Ed. Van Winkle.

March 9, 1890.

Perhaps He'll be Editor Some Day.

Dear Uncle Frank: I note with pleasure that you have added a personal column to your esteemed publication. Now I have had a *personal experience*, and I want to give the benefit of it to the readers of the O. & O.

While traversing the woods last summer I was fortunate enough to witness a curious fight between a black snake and chipmunk. The snake was at least 5 feet 6 inches long.

When I first saw them the snake was coiled to strike. Chippy was quietly gnawing a walnut, apparently not aware of his dangerous enemy. Suddenly the snake uncoiled, but his poisonous fangs did not touch Chippy, who with a quick bound was out of harm's way. Now comes the most curious part of all. The chipmunk, instead of fleeing to a place of safety, suddenly turned and with his puny paws hurled the nut he had been gnawing at the snake, striking him on the head and instantly killing him.

Fred C. Stone.

P.S. If any one of your readers wishes for further particulars refer them to me. *F. C. S.*

Great Gray Owl.

I had a Great Gray Owl come in to-day. It was shot at Wells, Me., last week. I thought you would like to know about it for the O. & O.

E. P. Wonson.

Gloucester, Mass.

New Publications.

A new and revised edition of *Lessons in Botany* by Alphonso Wood, has lately appeared from the press of A. S. Barnes & Co. The worth of the old edition issued some 20 years ago is well known to all students and educators in this science, and this revised edition cannot fail to occupy a still higher place in the Bibliography of Botany. It is especially adapted to the young student as a primary step to the study of the science in its advanced stages.

APRIL, 1890.

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SAN FRANCISCO, CAL.

BIRD SKINS AND EGGS OF SOUTHERN ARIZONA.

During the season of 1890 I shall collect, for scientific purposes, specimens in Natural History of the mountainous portions of Arizona. Special attention will be given to the rare and little known species, and to persons desiring such material further information will be given.

OTHO C. POLING - - - FORT HUACHUCA, A.T.

FOR SALE.

Eggs in Sets Apr. 15, 1890.

A.O.U. No. 1, 3, 4, 6, 7, 12, 13, 16, 27, 29, 30, 30a, 31, 32, 35, 40, 47, 49, 51a, 54, 56, 58, 59, 63, 64, 65, 67, 69, 70, 71, 72, 74, 75, 76, 77, 79, 80, 86, 90, 92, 106, 117, 118, 119, 120, 120a, 122, 123b, 126, 132, 133, 140, 141, 142, 143, 146, 147, 152, 155, 160, 167, 171a, 172, 172a, 180, 182, 186, 191, 194, 196, 197, 199, 200, 201, 202, 203, 207, 208, 211, 213, 214, 218, 219, 221, 223, 224, 225, 229, 258, 261, 263, 271, 273, 280, 285, 286, 289, 289a, 289b, 293a, 294, 297, 300, 305, 316, 320, 325, 326, 331, 333, 335, 336, 337, 337b, 339, 341, 342, 343, 347, 352, 360, 364, 366, 368, 373, 373a, 373c, 375a, 378, 381, 384, 385, 387, 388, 390, 393c, 394, 402, 406, 408, 409, 412, 413, 416, 417, 420, 421, 423, 428, 429, 430, 431, 433, 443, 444, 445, 447, 448, 452, 454, 456, 457, 458, 461, 462, 464, 465, 466, 466a, 467, 474, 474c, 474e, 474f, 475, 476, 477, 481, 483, 484, 488, 489, 490, 495, 495a, 497, 498, 499, 500, 501, 501b, 505, 505a, 506, 507, 508, 510, 511, 511a, 511b, 512, 513, 517, 517a, 518, 519, 519a, 528, 529, 530, 531, 538, 540, 542a, 546, 546a, 552, 552a, 555, 556, 558, 560, 560a, 563, 567, 567a, 569, 573, 574, 581, 581a, 581c, 581d, 581e, 584, 587, 587a, 588, 588a, 588b, 590, 591b, 592, 593, 594, 595, 596, 597, 598, 599, 601, 604, 605, 608, 610, 611, 612, 613, 614, 616, 617, 619, 622, 622a, 622b, 624, 627, 628, 629, 630, 631, 633, 633a, 636, 637, 642, 643, 648, 652, 657, 659, 671, 673, 674, 676, 681, 683, 683a, 684, 685a, 687, 698, 701, 703, 704, 705, 706, 707, 707a, 708, 710, 712, 713, 715, 718, 721, 721a, 725, 727, 729, 733, 735, 736, 742, 743, 746, 751, 763, 755, 756, 758, 758a, 759b, 760, 761, 761a, 764, 765, 766, 767, 768.

Many of these sets are extremely rare, and no discount can be made from list prices. Some sets are accompanied by nests, in which case they will positively not be sold separately. A few of the rarer sets contain damaged eggs, held on account of the scarcity, full particulars will be given on inquiry. Single eggs of many of these and others in great variety.

Frank B. Webster,

409 Washington Street,

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BOSTON, MASS., APRIL, 1890.

No. 4.

The Shore Bird Migration at Monomoy Island, Cape Cod, Mass., Summer of 1888.

No notes were taken between May 27th and June 8th, as I was away from the Island during that period. June 8, 1888, wind northeast to north, fresh. Saw one small flock of Black-bellied Plover on the flats, and one Greater Yellow-legs on the meadow. Large Gulls, (mostly Herring) much decreased. Water fowl seen were three Sheldrakes. Night Herons increasing on the meadows.

June 9th, wind northeast to southwest, fresh in the afternoon. No shore birds seen.

June 12th, wind northwest to north, fresh; weather, fair. A bunch of six Great Northern Divers seen out in the bay, and six Richardson's Jaegers passed over the island. Red-winged Blackbirds, Sharp-tailed Finches, and Savannah Sparrows breeding at this date.

June 13th, wind southwest, moderately fresh; weather fair. One flock of about twenty Black-bellied Plover passed over the island high up in the air.

June 14th, wind south, moderately fresh, with rain in the afternoon. Found Least Terns common on their breeding ground on the high beach, but found none nesting. Found two nests of Piping Plover, one with four eggs, and the other with one. Saw several Scoters flying down the beach outside of the breakers.

June 15th, wind south to southwest, moderate, with light rain and fog. Took a long tramp out over the flats but saw no shore birds. Saw one flock of seven Sheldrakes flying about out in the bay.

June 16th, wind all ways, moderate; weather fair. One Greater Yellow-legs the only shore bird seen. Saw six Great Northern Divers out in the bay.

June 18th, wind southwest, fresh; weather

fair. Large Gulls tolerably common. A few Sheldrakes remain.

June 19th, wind northeast, fresh; weather fair. One flock of Sheldrakes noticed. Night Herons abundant on the salt meadows.

June 20th, wind southwest in forenoon, fresh, northeast in afternoon, becoming calm. No water birds seen excepting Night Herons.

June 21st, wind southeast, fresh with thick fog. Only shore birds seen were several Spotted Sandpipers.

June 22d, wind southwest, fresh, with fog most of the day. Went up on to the high beach. Found Least Tern nesting. A nest with one egg found, and saw several fishermen that had collected several sets. Not a day passes in the summer that the fishermen about this island do not patrol the beach in search of the Tern's and Piping Plover's eggs. The birds have no chance to breed. When I first visited the island about six years ago there were several hundred pairs of Least Tern breeding, but they have now become reduced to less than twenty-five pair. Several Scoters seen flying about on the outside. Found Piping Plover and Spotted Sandpipers common at the Point.

June 27th, wind northwest, fresh; weather fair. A few Great Northern Divers still remain out in the bay. Some fifty or more large Gulls are seen about the bars. Terns on the increase.

June 28th, wind northeast, fresh; weather cloudy with rain after 4 p.m. Saw four Great Northern Divers near the beach. Saw two "cripples," a Semipalmated Plover and Sandpiper in down, running about in the beach grass.

June 29th, wind northeast, fresh with light rains. Visited the high beach and found several sets of two eggs each of the Least Tern. Large numbers of Roseate and Common Terns seen flying along over the beach or fishing outside of the surf. Large Gulls decreasing.

June 30th, wind southwest, fresh; weather fair. Large numbers of Tern seen about the island to-day.

July 1st, wind northeast and blew a gale all day, with rain in the evening. Terns very abundant on bars near the "cut-through." Young Spotted Sandpipers tolerably common.

July 2d, wind northeast, fresh. Very few large Gulls seen at this date. Terns on the increase. One Great Northern Diver remains about the island.

July 3d, wind southwest, light; weather fair. Saw several flocks of Semipalmated Sandpipers flying from the southward this morning. Saw several Petrels out in the bay.

July 6th, wind northwest, fresh; weather fair. Saw three large Plovers flying from the flats. Several small flocks of Semipalmated Sandpipers, one single Sanderling and three flocks of Scoters seen. Large Gulls on the increase.

July 7th, wind southwest, fresh; weather fair. Did not go out on the flats. Saw a large number of Gulls on the bars.

July 8th, wind northwest, fresh, changing to southwest, light in the afternoon; clear. Several Semipalmated Sandpipers seen on the flats. Several small flocks of Scoters, and four Petrels seen out on the bay.

July 11th, wind southeast, moderately fresh, with fog most of the day. Several Petrels and a flock of twelve Great Northern Divers seen out in the bay. A full plumaged, or adult, Black Tern, seen in company with some Common Tern. Large flock of Night Herons on the marshes.

July 12th, wind southwest, fresh gale; weather fair. Shore birds noticed were several Semipalmated Sandpipers flying from the flats.

July 13th, wind northeast, moderate; weather clear. Several flocks of Semipalmated, and one of Least Sandpipers seen. Four Red-breasted Snipe and one Red-breasted Sandpiper were among the arrivals to-day. One Greater Yellow-legs heard. A number of birds seen on the flats that I could not identify.

July 14th, wind all ways, moderate; weather fair. Shore birds noticed to-day were six flocks of Semipalmated Sandpipers and one single Hudsonian Curlew.

June 15th, wind southwest, moderate; weather fair. Two flocks, one of six and one of ten Red-breasted Snipe came along to-day. Increase noticed of Semipalmated Sandpipers.

July 16th, wind northeast to east, moderate; weather fair. Sandpipers much increased.

July 17th, wind east, moderate; weather fair. Large flocks of Semipalmated Sandpipers came along to-day.

July 18th, wind east to northeast, moderate, with fog in the afternoon. One Greater Yellow-legs seen flying over the house.* Least Sandpipers common on the salt marshes.

July 19th, wind southeast to southward, fresh, with fog part of the day. A marked increase in shore birds noticed to-day. Saw as many as seventy-five Red-breasted Snipe, the largest flock containing thirteen. Several small flocks of Yellow-legs seen on the flats at the edge of Salt meadows in company with Snipe and Stilt Sandpipers. A few seen on the meadows. Three Stilt Sandpipers in adult or breeding plumage shot while flying to my decoys on the meadows. Several others seen in company with Yellow-legs and Red-breasted Snipe on the flats. Semipalmated Sandpipers abundant.

July 20th, wind south to southwest, moderate. Red-breasted Snipe remain about the same as yesterday. One small flock of Yellow-legs seen. A Hudsonian Curlew heard.

July 21st, wind southeast in the forenoon, changing to southwest in the afternoon, light rains with fog part of the day. Saw several flocks of Red-breasted Snipe and several flocks of Snipe and Yellow-legs together. Eight Red-breasted Snipe collected were all in adult plumage. Large Gulls very much increased. A pair of Hudsonian Curlews seen on the flats.

July 23d, wind southwest, fresh; weather fair. Red-breasted Snipe on the decrease. Other birds remain about the same.

July 24th, wind southwest, fresh, with fog part of the day. Took a long tramp out over the flats. Found Semipalmated Sandpipers abundant. Saw about two dozen Semipalmated Plovers. Other birds seen were two adult Black-bellied Plover, three Bonaparte's Gulls, two Red-breasted Snipe, and a bunch of eighteen Sanderlings.

July 25th, wind northwest to southwest, moderate; weather fair. No new arrivals. Two Red-breasted Snipe seen. Made a visit to the high beach. Found Least Tern decreased since last visit. Should judge that there were some young on the beach from seeing the old birds flying about with fish in their bills. One Greater Yellow-legs seen flying over the meadows.

July 26th, wind southwest, fresh; weather

* House of the Bristol Branting Club.

fair. Shore birds noticed were several flocks of Semipalmated Sandpipers. Roseate and Common Terns abundant, but no Arctics seen.

July 27th, wind all ways, moderate with rain. Only birds seen on the flats were Semipalmated Sandpipers, Sanderlings and several other birds I could not identify.

July 28th, wind north to northeast with rain. New arrival was a Red-breasted Sandpiper.

August 1st, wind northwest to southeast, fresh, moderating to calm. Saw large flock of Semipalmated Sandpipers about the "cut through." One Turnstone seen on the flats, and a flock of Scoters out in the bay.

August 2d, wind northwest to southwest, very light; weather fair. Sanderlings abundant, Turnstone common, several large flocks being seen. Semipalmated Sandpipers abundant and on the increase. A small flock of Black-bellied Plover three Red-breasted Snipe and several Greater Yellow-legs were noticed at the "cut through." Examined thirteen Sanderlings collected to-day. I found that four showed as much rusty or brown coloration about their throats and necks as the highest colored spring specimens. The others, with the exception of two, show more or less rusty color in their plumage. None in young or winter plumage.

August 3d, wind southwest in the afternoon, moderate, fresh; weather fair. Sanderlings decreased. Least Sandpipers abundant on the meadows. Semipalmated Plover common. Other birds seen were a flock of seven Greater Yellow-legs, a flock of twelve Bonaparte's Gulls and a single one, one Red-breasted Sandpiper, one Red-breasted Snipe, and a large flock and several single Black-bellied Plover. Young of the year, Piping Plover, noticed full grown.

August 4th, wind southwest, very fresh with rain in the afternoon. Saw several small flocks of Black-bellied Plover. Other birds remain the same.

August 10th, wind north to northeast, moderate; weather fair. I have been away from the island since August 4th. During my absence two Stilt Sandpipers, one Hudsonian Curlew, and one Willet have been shot by gunners. To-day found Sanderlings scarce. Semipalmated Sandpipers much decreased, Semipalmated Plover increased, and Black-bellied Plover much increased. Several Red-breasted Snipe and Sandpipers seen, and three Pectoral Sandpipers flew over my stand on the flats.

August 11th, wind northeast, moderate, fresh; weather fair. Birds very much the same as yesterday. Semipalmated Sandpipers collected in the young of the year plumage,

also three Red-breasted Snipe in young plumage. One Red-breasted Snipe was in adult dress. Shot four Black-bellied Plover, one in fourth stage or nearly full plumage, one in third, one in second, and the other in the first or young of the year. Two Willet's seen, also large flocks of Night Herons.

August 13th, wind southeast in the forenoon very fresh with heavy rain, changing to southwest with fair weather in the afternoon. Birds remain the same as yesterday.

August 14th, wind west to northwest, very fresh all day. Spent the afternoon in company with two gentlemen from New Haven on the meadows. A flock of fifteen Greater Yellow-legs was started from the meadow. Six Red-breasted Snipe in young plumage, six or more Yellow-legs, one Greater Yellow-legs, two Pectorals, and one Hudsonian Curlew were taken by our party. Several other Hudsonian or Jack Curlew seen. Least and Semipalmated Sandpipers abundant. Several large flocks of Black-bellied Plover seen flying to the high beach.

August 15th, wind southwest, very fresh. No large birds seen. Black Duck and a Solitary Sandpiper were taken by the New Haven gentlemen this afternoon. Several Petrels seen out in the bay.

August 16th, wind southwest, very fresh; weather fair. No change noticed in the birds. Gunners shot nine Red-breasted Sandpipers on the flats. A White-rumped Sandpiper taken by the New Haven gentlemen. Richardson's Jaegers abundant. Took a ♂ Piping Plover in the adult plumage.

August 17th, wind southwest, very fresh; weather fair. Small increase in Black-bellied Plover. Six or more Red-breasted Sandpipers seen; Several Red-breasted Snipe in young plumage noticed; young of the year, Semipalmated Plover, taken; several Black Tern in the young plumage were seen.

August 18th, wind northwest to southwest, moderate, fresh. Birds remain the same as yesterday.

August 29th, wind northwest to east; weather fair. Several Willets seen; other birds remain the same.

August 21st, wind southeast, moderate, fresh, with light rains. Went up to the high beach. Saw six large flocks of Black-bellied Plover, and several shot were in very dark plumage. Several small flocks of Turnstone were noticed in young plumage. Least and Semipalmated Sandpipers and Plover common on the meadows where several Greater Yellow-legs were seen.

August 22d, wind northwest to southwest, very fresh; weather fair. Did not see many birds about to-day. A small number of Willets seen. A flock of Black Ducks numbering about eight seen flying over the meadows, and some four or five flocks of Black-bellied Plover noticed flying to the high beach.

August 23d, wind northwest, fresh. Saw several Black Terns, young plumage, out in the bay.

August 24th, wind southwest, very fresh; weather fair. Several flocks of young Red-breasted Sandpipers and a small number of Black Terns, young, were seen.

August 25th, wind west to southwest; weather fair. New arrivals to-day were a small number of Pectoral Sandpipers. Several each of Hudsonian Curlew, Black Tern and Willets noticed. A flock of about thirty Red-breasted Sandpipers seen flying over the island.

August 26th, wind southwest, very fresh. Several small flocks of Pectorals seen on the meadows.

August 27th, wind west, very fresh with tempest and light rain in the afternoon. Birds remain about the same. Several flocks of Red-breasted Snipe seen. Several Bonaparte's or White-rumped Sandpipers seen and one taken. An adult Black Tern seen.

August 28th, wind northwest, very fresh, moderating to north in the afternoon; weather fair. New arrivals seen were a large flock of Golden Plover seen flying over the island, and four found on the meadows; a Black-billed Cuckoo shot by Mr. J. F. Whiting.

August 29th, wind northwest to southwest, very fresh; weather fair. Two Golden Plover taken on the meadows. Sanderlings, young, abundant. Several Pectorals seen on the meadows. A Titlark taken by "J. F. W.," which is very early for this bird to arrive at the island.

August 30th, wind southwest, very fresh all day; weather fair. A Solitary Sandpiper taken on the meadow. Other birds remain the same.

August 31st, wind southwest, very fresh, changing to south in the afternoon. A young ♂ Baird's Sandpiper was taken by a New Haven gentleman as recorded in the O. & O., December, 1888.

John C. Cahoon.

The Eggs I Didn't Take.

While reading Mr. C. S. Brimley's article on the nesting of the Ruby-throated Hummingbird, in the February O. & O. my mind wandered back to the circumstances attending my first find of the eggs of that species. It was on the 30th day of May, 1885. At that time I was just beginning to study the lessons that all lovers of natural history must learn sooner or later, and my mind and interests were being slowly centered on the study of oölogy and its inseparable companion ornithology. No one of all the memorable events in my varied experience at collecting has made such a deep impression upon my mind as the finding of my first Hummingbird's nest. Aimlessly I wandered the familiar wood paths on that bright Memorial day morning, and a morning such as only the queen of all months can furnish, paying no special attention to anything and yet taking in, in one grasp the whole of nature from the modest violet to the showy box; from the inquisitive mosquito to the "thousand legs" that I disturbed by kicking away the stick under which he was hidden; from the sphinx-like Hummingbird to the majestic Red-tail soaring high overhead, trying in some way to satisfy that vague longing for something, I hardly knew what; that longing which causes all boys who have reached the age of sixteen to take the road to usefulness and manhood or *vice versa*.

This was one of those mornings which had been so common lately in which nature, robed as she was in her vesture of emerald, and holding forth all the charms of vernal beauty, was swiftly and silently encircling me with bands which should hold for years, and giving me desires which should have their effect upon my whole life. But I am getting away from my subject, and yet the picture of that morning comes up so vividly before me that I cannot but describe it. Are not the majority of us led into the study of nature in something the same way? "There is a divinity that shapes our ends, rough hew them as we may."

Now to that Hummingbird's nest. As I was passing along a well-worn cart path my attention was attracted by a Hummingbird which darted by my head, and flying to an old ash tree alighted directly upon a lichen covered knot(?). I stood watching the bird for a moment, when it suddenly flashed through my mind that, that selfsame knot was no knot at all, but a nest. Some of you who remember your first find can perhaps imagine my feel-

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ings. My next thought was "how shall I secure it?" for the longings and aspirations of a full-fledged oölogist were suddenly born within me.

First I tried to reach it from the ground but it was just two feet beyond my grasp. Then I climbed the tree and peering into the nest beheld the first eggs of *Trochilus colubris* that I had ever seen,—and weren't they beauties? But still they might as well have been in Africa as far as accessibility was concerned. You may say why didn't I employ one of the thousand and one arts understood by the oölogist? Ah! but you must remember that this was my *first* experience. Still I did not despair, but going home I procured a saw, and on returning, spent the next ten minutes seated upon a stone wall in profound meditation. I had found a nest and had a saw but still the problem of bisection without displacement was far from being solved. Many were the plans but none of them seemed to be practical, until finally I decided upon the one which appeared to be the best. I drove the walking stick, which I carried, into the ground directly beneath the nest, then procuring a narrow board I placed one end on the stick and the other on the stone wall before mentioned, thus forming a very unstable platform. This I mounted with considerable difficulty, as you may imagine, and began operations upon the limb about four inches back of the nest.

All this time the birds were flying around my head and making things decidedly uncomfortable in that direction. Well, I had that limb sawed about half off and was beginning to congratulate myself on what a splendid "nest egg" for a collection I was going to procure when

"All at once and nothing first,
Just as bubbles do when they burst!"

my platform went out from under me. Of course, as instinct prompted, I grasped the branch as I felt myself falling, but no sooner had reason had a chance to assert itself than I thought that that very thing would spill the eggs, so acting on the impulse I made things worse by letting go the branch. Up it shot like a catapult, acting as such on the eggs, for when the branch had reached its natural height the eggs continued their skyward course. Imagine my thoughts. It was an easy matter now to procure the nest complete which I did in a very short time. I now have a handsome nest in my cabinet labeled Brockton Heights, May 30, 1885, and I also have in my mind a vivid remembrance of the set of eggs I didn't take on my initiatory collecting trip.

Ben Hokey.

A Series of Eggs of the Louisiana Water Thrush.

The eggs of the Louisiana or Large-billed Water Thrush (*Seiurus motacilla*) exhibit great variation in size and markings. The nests, however, appear to be all similarly constructed.

Set I. June 1, 1886. Edgecombe County, N. C. Nest on ground, at the side of a small creek. Composed of mud, leaves, fibrous rootlets and moss rotten and decayed. Four eggs, fresh. White, with a pinkish tinge, profusely speckled all over the surface with cinnamon-rufous. Near the larger ends there are indistinct wreaths, composed of larger spots of cinnamon-rufous, compactly arranged, and also many spots of lilac-gray: .76 x .65; .78 x .65; .75 x .64; .75 x .64.

Set II. June 23, 1888. Monroe County, Pa. Nest near the water, in roots of a fallen tree. Composed of leaves on the outside, lined with rootlets, feathers and hair. Four eggs, incubation advanced. Light creamy white, speckled and spotted with hazel and lilac-gray. The markings are all over the surface, but are much thicker and heavier near the larger ends: .79 x .60; .79 x .59; .80 x .60; .79 x .60.

Set III. April 30, 1888. Iredell County, N. C. Nest among roots, under the bank of a stream. Five eggs, incubation begun. Light creamy white, speckled with cinnamon and lilac-gray. The markings are heavier near the larger ends: .75 x .57; .74 x .58; .76 x .57; .74 x .58; .71 x .56.

Set IV. May 7, 1888. Iredell County, N. C. Nest in the bank of a small stream. Five eggs, incubation begun. White, speckled all over with russet and lilac-gray. Near the larger ends the specks increase in size and heaviness: .79 x .64; .79 x .63; .82 x .61; .79 x .62; .79 x .63.

Set V. April 30, 1888. Iredell County, N. C. Nest between two roots, in the bank of a small stream. Five eggs, incubation begun. Light creamy white, sprinkled all over the surface with specks of vinaceous and lilac-gray. Near the larger ends the specks are so close together that they form wreaths on some of the eggs: .81 x .57; .79 x .56; .77 x .56; .84 x .59; .78 x .58.

Set VI. April 30, 1889. Wake County, N. C. Nest three feet above the water, on the steep bank of a small stream. Made of rotted leaves outside, but the body of the nest is made of grass and weed stems, and it was completely sheltered above by the overhanging bank. Five eggs, embryos rather large, but soft. Creamy

white, speckled with cinnamon-rufous and lilac-gray. Near the larger ends the markings increase in number and intensity, where they form heavy wreaths: .72 x .62; .74 x .61; .73 x .61; .71 x .60; .70 x .60.

Set VII. April 29, 1889. Wake County, N. C. Nest in steep bank of small stream, four feet above water, the nest being completely sheltered from above by the overhanging bank. The nest is a bulky structure of dead leaves outside, but inside it is composed of grass and weed stems. Five eggs, fresh. Pinkish-white, speckled and spotted with cinnamon-rufous and lilac-gray. Near the larger ends the markings are much heavier, and the lilac-gray is especially noticeable on this set: .76 x .59; .76 x .59; .80 x .60; .78 x .58; .76 x .60.

Set VIII. May 24, 1886. Saybrook, Conn. Nest built among the roots of a maple tree, prostrated in a thick swamp, about one foot from the water. Composed outwardly of muddy leaves, lined with fine roots, grass and hair. Six eggs, fresh. White, thickly speckled all over with russet and lilac-gray. The markings are heavier near the larger ends: .77 x .57; .77 x .60; .77 x .60; .81 x .63; .75 x .61; .73 x .59.

Set IX. May 2, 1889. Wake County, N. C. Nest three feet up, under roots on perpendicular bank, over running water. Made of rotten leaves, lined with weed and grass stems. Five eggs, fresh. White, heavily speckled and spotted with hazel, chestnut and lilac-gray. The markings are very heavy near the larger ends: .76 x .65; .74 x .64; .76 x .64; .76 x .64; .75 x .63.

Set X. April 24, 1888. Iredell County, N. C. Nest in bank of a small stream. Five eggs, fresh. White, with a pinkish tinge, profusely speckled all over with russet. Near the larger ends there are a number of spots of russet and lilac-gray of a larger size: .72 x .59; .72 x .59; .69 x .59; .73 x .58; .73 x .59.

Set XI. May 1, 1888. Iredell County, N. C. Nest in bank of a stream. Five eggs, incubation begun. White, heavily spotted with chestnut. There are also a few spots of lilac-gray, and the markings are much larger and heavier at the greater ends: .82 x .62; .86 x .61; .84 x .60; .78 x .61; .80 x .60.

Set XII. April 30, 1888. Iredell County, N. C. Nest in side of bank of a small stream. Five eggs, incubation begun. White, tinged with pinkish; spotted with lilac-gray and chestnut. The markings are heavier near the larger ends: .76 x .61; .75 x .60; .75 x .61; .75 x .61; .77 x .61.

J. P. N.

Wanderings, No. 7.

LOST.

Some time ago, I said I would tell you how I got lost, and so to commence at the beginning, I was spending a week in my old haunt at Plymouth, Mass., in the month of July, 1889, and busily engaged in recruiting my health, which had become somewhat damaged, and on the last day but one before returning to the city, I ventured to start on a walk of about six miles to Ship Pond, which lies just at the seashore, although I had been forbidden by my physician to take any tramps.

My friend and myself started early in the morning that we might go leisurely along, so as not to weary me too much, and give us a chance to stop and view the ever-varying scenery and rest ourselves in the numerous shady dells which fill this region.

To explain the wherefore of our mishap it will, perhaps, be well to explain something of the character of the country, that our reputation for woodcraft may not suffer too severely.

The soil of this region is almost entirely a light quartz sand, the tail end of the drift of the Glacial Period in Massachusetts, and the grass is very scanty, and its footing in the soil rather precarious. There being very little travel through this section, except on one or two main roads, which connect Plymouth village with the Cape towns, the ways soon become more or less grown up with grass, if left untravelled for a few weeks, and much resemble the numerous "Wood roads" which, if much used soon become to look like veritable highways.

We left the main road after a bit to follow up some bird, whose familiar notes excited our curiosity, and chasing it about wandered deeper and deeper into the wood.

We halt, and then move on from one charming spot to another, till we know not north from south, and care but little.

"Well," you say, "you are two pretty fellows, what are you way off here for?"

But, stranger, if you had ever been permitted to rest your eye on one of the dainty palaces of nature, which here rise up at every turn, you would not ask.

A glen with steep hills rising from the very edge of the brook which ripples along its depths, shaded by noble trees whose trunks are covered with the most beautiful lichens, and from whose branches hang masses of moss, which cover the gnarled and rugged surface with a drapery so soft and beautiful

as to hold the eye entranced, and carpeted with a texture of beautiful mosses, ferns and luxurious plants that beautify every nook and drooping over greet the water with a sweet caress. The calm pools give back the dark reflections of the foliage, and the voices of the rippling shallows combine with the notes of the joyous birds in the sweet harmony of nature.

The fish darting to its hiding place, the squirrel leaping from branch to branch, and the whirring grouse started from her covert by the approaching footstep, give life to the beautiful scene.

And now, friend, can you wonder that the weary denizen of the city, once more dropped back into the days of his country boyhood, should forget his mission, lose his way, and here rest his weary eyes on the placid scene.

But we at last emerge into what seems like a travelled highway and continue our journey.

After walking for some distance we think it about time to smell salt water, but instead a turn in the road discloses a pond fringed by fields and dotted with water lilies, with a few houses on its border, the appearance of which did not tally with that of any place which we might expect to strike if on our proper course.

"Well, old man," says my friend, "what do you think about this?"

"Don't you know where we are?"

"No, I never was here before. I will inquire at this house."

The inquiry produced the information that we were at Savary's Pond, about three miles south of where we should have been; and that if we took a certain direction and went about a mile, and then followed a foot-path and tacked and gee-hawed into about forty different points of the compass, we should reach our desired haven of rest. All of which was as clear as mud and about as cheering, but we had the general direction, and we trusted to luck and our wits to come out right.

About three miles more brought us out at the proper place, and the scene which greeted our eyes well repaid us for our trouble. The pond lies within twenty rods of the sea, and with high tides and an easterly wind may sometimes have its water tainted with the dashing surf.

We ascended the cliffs, rising about 100 feet sheer above the water's edge on either side the outlet of the pond, and throwing ourselves on the hardy herbage, which crowns the summit, feasted our eyes on the scene spread out below us. The sandy shores of Cape Cod

stretch themselves along the horizon with the broad waters of the bay rolling between, dotted here and there by passing vessels and by the numerous boats and still more numerous buoys of the lobster-men, who ply their trade in the shallow waters. The Gulls sailed over the waves, with their beautiful blue and white plumage reflecting back the rays of sunshine as they inclined their pinions to the varying breezes.

But time flies, and the gathering clouds which had dropped several showers during the forenoon, now closing in and hiding the face of the sun from our view, warned us that we had better be cutting out our road homeward, and with a last look at the view we pulled up our belts another hole and started back.

All went well for a short time, but in the course of an hour we came out of the woods through which we had been travelling, and another view of the sea broke upon us. But how different from the other. Then the water was smooth, the sun shining upon its surface was reflected back by every ripple in a flash of silvery fire, and the white sails were moving slowly over the surface. But now all was changed. The wind had risen, and the boats, close reefed, were scudding along with rail half under the water and ever and anon hidden from our sight by the bursts of rain which was now steadily falling. The formerly placid sea was dark and its surface, lashed by the winds, was torn and whipped into spray, which dashed against the rocky shores.

But this sight, grand as it was, was an unwelcome one to us, for we should then have been three miles inland, and far from the sound of the surf. So, taking the first road leading to the westward, we resumed our weary tramp through the sandy roads with the rain beating down upon us, and as the miles rolled away behind us we began to come in sight of familiar scenes, till about 4 p.m. we came in sight of our destination, after a tramp of nearly twenty-four miles, half of which was through wet, sandy paths, with dripping bushes sweeping us as we passed, and with the rain pouring down upon our devoted heads.

F. A. Bates.

Alexander Wilson.

It is a pleasure to inform the readers of the *Ornithologist* and *Oölogist* that I have negotiated a sale of Wilson's own copy of his *American Ornithology*. Seven volumes of this copy

are in the original sheets, unbound and untrimmed and interleaved with original MSS. letters, poems, etc., with a prospectus for an octavo edition which Wilson intended to have published had not his useful life been cut short in its prime. The remaining two volumes are bound in the usual manner of binding this work. The collection has passed into the hands of Mr. Henry D. Minot, a sincere lover of life in nature. I believe this collection is second only to the one owned by the writer, which includes over half of the original drawings and a large number of unpublished letters, as well as all his published works, and those that have been written about him, with the exception of two rare volumes which a ten years' search in England has failed to secure. Twice they were catalogued and both times lost. I congratulate Mr. Minot, for he knows Wilson, and to know him is to revere his memory while earth life remains. Mr. Editor, I wish we could enlist you in the cause of humanity to aid in stopping the wholesale slaughter of birds. I would not again take an egg from a bird's nest, neither would I kill even a House Sparrow if the skins brought one hundred dollars each. I was heartless while ignorant, hence perhaps excusable. If fewer birds were killed the price would advance and make a much better business for dealers. The excuse of scientists (?) is inexcusable. They can not study life in death. Any one who knows what life is would never again take it wilfully. I am glad to see the prosperity of the O. & O. which I feel is assured by the unpatented smile which its editor carries around with him.

Jos. M. Wade.

Boston, Mass.

Notes from Millbury, Mass.

Red Crossbills, in small flocks, have been about here most of the winter. White-winged Crossbills have also been seen several times, nearly always feeding on the ground, and five have been taken. Redpolls have been very numerous all winter in flocks containing from two to three hundred. They often came into the gardens, and fed on small seeds; and twice I have seen them in the middle of the street with European Sparrows, Bluebirds, Rusty Blackbirds, Red-headed Wood-peckers; and Winter Wrens were seen February 24th; the 25th, Song Sparrows could be heard along the Blackstone river.

H. T. V. O.

The J. P. N. Collection of Eggs of the Raptores.

NAMES.	SETS.	NO. OF SETS.	NO. OF EGGS.
American Barn Owl,	2-5, 1-6, 1-7, 1-10,	5	33
Am. Long-eared Owl,	1-4, 1-4, 3-6, 1-7,	6	34
Short-eared Owl,	1-4,	1	4
Barred Owl,	13-2, 11-3,	24	59
Florida Barred Owl,	2-2,	2	4
Spotted Owl,	1-2,	1	2
Screech Owl,	3-4, 3-5, 4-6,	10	51
Florida Screech Owl,	2-3, 1-4,	3	10
Texan Screech Owl,	2-4,	2	8
Californian Screech Owl,	1-4, 1-5,	2	9
Rocky Mountain Screech Owl,	1-4,	1	4
Great-horned Owl,	4-2, 5-3,	9	23
Western-horned Owl,	3-2, 1-3,	4	9
Dusky-horned Owl,	1-2,	1	2
Hawk Owl,	1-7,	1	7
Burrowing Owl,	1-6, 6-8, 4-10, 1-11	12	105
Whitney's Pygmy Owl,	1-2, 3-3,	4	11
White Gyr Falcon,	1-3,	1	3
Iceland Gyr Falcon,	1-2,	1	2
Macfarlane's Gyr Falcon,	1-2,	1	2
Prairie Falcon,	1-2, 1-3, 2-5,	4	15
Duck Hawk,	2-3,	2	6
European Merlin,	1-4,	1	4
Pigeon Hawk,	2-4,	2	8
Sparrow Hawk,	1-3, 12-4, 14-5, 1-6,	28	127
European Kestrel,	3-5, 4-6,	7	39
Caracara Eagle,	9-2, 9-3,	18	45
Fish Hawk,	3-2, 36-3, 1-4,	40	118
Swallow-tailed Kite,	1-2,	1	2
White-tailed Kite,	1-3, 2-4,	3	11
Mississippi Kite,	1-2,	1	2
Marsh Hawk,	2-4, 3-5, 2-6, 1-7,	8	42
Cooper's Hawk,	3-2, 1-3, 12-4, 4-5, 1-6,	21	83
Sharp-shinned Hawk,	4-3, 13-4, 3-5, 1-7,	21	86
American Goshawk,	1-2, 1-3,	2	5
Western Goshawk,	1-2, 1-3,	2	5
Harris's Hawk,	1-2, 5-3,	6	17
European Buzzard,	3-3, 2-4,	5	17
Red-tailed Hawk,	30-2, 8-3, 3-4,	41	96
Western Red-tail,	6-2, 2-3,	8	18
Krider's Hawk,	1-3, 1-4,	2	7
Red-shouldered Hawk,	1-1, 16-2, 32-3, 17-4,	66	197
Florida Red-shouldered Hawk,	3-2, 5-3,	8	21
Red-bellied Hawk,	1-2, 1-3,	2	5
White-tailed Hawk,	3-2,	3	6
Swainson's Hawk,	7-2, 1-3,	8	17
Broad-winged Hawk,	10-2, 7-3, 1-4,	13	45
Am. Rough-legged Hawk,	1-2, 1-4,	2	6
Rough-legged Hawk,	1-4,	1	4
Ferruginous Rough-legged Hawk,	2-2,	2	4
Golden Eagle,	6-2, 1-3,	7	15
Bald Eagle,	3-2,	3	6
Gray Sea Eagle,	1-2, 1-3,	2	5
Turkey Buzzard,	13-2,	13	26
Black Vulture,	14-2,	14	28
Totals,		465	1493

March 1, 1890.

LATE NESTING OF THE CROW.—On September 10th, a Crow's nest was found here which contained three fresh eggs. Same nest was used in the spring, possibly by the same birds(?).

S. R. Ingersoll.

Ballston Spa, N.Y.

A List of the Birds of McLennan Co., Texas.

These observations were made in the years 1886 and 1889 and up to September, 1888, when I left the country, but I could devote but a small portion of my time to the birds, so this list is, I fear, very incomplete, but I hope it may be of use in giving a general idea of the avian-fauna of McLennan County.

1. *Podilymbus podiceps* (6), Pied-billed Grebe. Several were noticed in the winter.

2. *Pelicanus erythrorhynchus* (125), American White Pelican. Several were seen. No doubt a migrant.

3. *Lophodytes cucullatus* (131), Hooded Merganser. Winter visitor.

4. *Anas boschas* (132), Mallard. Rather common in winter.

5. *Anas carolinensis* (139), Green-winged Teal. Winter visitor.

6. *Anas discors* (140), Blue-winged Teal. Winter visitor. Said to breed occasionally.

7. *Aix sponsa* (144), Wood Duck. Winter visitor.

8. *Aythya americana* (146), Red-head Duck. Winter visitor.

9. *Anser albifrons gambeli* (171a), American White-fronted Goose. Common migrant.

10. *Branta canadensis* (172), Canada Goose. Common migrant, some remain throughout the winter.

11. *Branta bernicla* (173), Brant. Migrant.

12. *Ardea herodias* (194), Great Blue Heron. Scarce.

13. *Ardea egretta* (196), American Egret. Several specimens of this species or *Ardea candidissima* were seen.

14. *Ardea virescens* (201), Green Heron. Scarce, probably resident.

15. *Grus americana* (204), Whooping Crane. Common migrant.

16. *Grus mexicana* (206), Sandhill Crane. Common migrant.

17. *Fulica americana* (221), American Coot. Winter resident, seen on May 5.

18. *Bartramia longicauda* (261), Field Plover. Abundant, migrant.

19. *Aegialitis vocifera* (273), Killdeer. Common resident. Nidificates.

20. *Colinus virginianus texanus* (289b), Texan Bobwhite. Common resident. Breeds.

21. *Tympanuchus americana* (305), Prairie Hen. Now rare, formerly common.

22. *Zenaidura macroura* (316), Mourning Dove. Abundant resident. Breeds.

23. *Cathartes aura* (325), Turkey Vulture. Abundant resident. Breeds.

24. *Catharista atrata* (326), Black Vulture. Abundant resident. Nidificates.

25. *Elanoides forficatus* (327), Swallow-tailed Kite. Scarce. Summer visitor.

26. *Circus hudsonius* (331), Marsh Hawk. Common resident. Probably nidificates.

27. *Accipiter velox* (332), Sharp-shinned Hawk. Common in winter.

28. *Accipiter cooperi* (333), Cooper's Hawk. Scarce winter visitor.

29. *Buteo borealis* (337), Red-tailed Hawk. Quite a common resident. Breeds.

30. *Buteo lineatus* (339), Red-shouldered Hawk. Tolerably common. Breeds. This bird is probably *B. l. alleni*.

31. *Falco sparverius* (360), American Sparrow Hawk. Abundant winter resident.

32. *Polyborus cheriway* (362), Audubon's Caracara. Scarce. Breeds.

33. *Strix pratensis* (365), American Barn Owl. Probably occurs; found in adjoining county.

34. *Asio accipitrinus* (366), American Short-eared Owl. Winter visitor.

35. *Syrnium nebulosum* (367), Barred Owl. Scarce. Is probably the variety *alleni*. I secured no specimens and could not determine.

36. *Megascops asio macalli* (373b), Texan Screech Owl. Common resident. Breeds.

37. *Speotyto cunicularia hypogaea* (378), Burrowing Owl. Not uncommon.

38. *Geococcyx californianus* (385), Road-runner. Resident, not common. Nidificates.

39. *Coccyzus americana* (387), Yellow-billed Cuckoo. Scarce summer visitor.

40. *Coccyzus erythrophthalmus* (388), Black-billed Cuckoo. Scarce summer visitor.

41. *Ceryle alcyon* (390), Belted Kingfisher. Common in winter, scarce in summer.

42. *Dryobates villosus auduboni* (393b), Southern Hairy Woodpecker. Rare; one taken December 1, 1886, and another seen.

43. *Dryobates pubescens* (394), Downy Woodpecker. Common resident. Breeds.

44. *Dryobates scalaris* (396), Texan Woodpecker. Rather common resident.

45. *Sphyrapicus varius* (402), Yellow-bellied Sapsucker. Common winter resident.

46. *Ceophlæus pileatus* (405), Pileated Woodpecker. Scarce.

47. *Melanerpes erythrocephalus* (406), Red-headed Woodpecker. Common resident. Breeds.

48. *Melanerpes carolinus* (409), Red-bellied Woodpecker. Common resident. Breeds.

49. *Colaptes auratus* (412), Flicker. Common in winter.
50. *Antrostomus carolinensis* (416), Chuck-will's-widow. Common summer visitor. Nidificates.
51. *Chordeiles virginianus* (420), Night Hawk. Common summer visitor. Nidificates.
52. *Chaetura pelasgica* (423), Chimney Swift. Seen in adjoining county (Falls).
53. *Trochilus colubris* (428), Ruby-throated Hummingbird. Abundant summer visitor. Breeds.
54. *Milvulus forficatus* (443), Scissor-tailed Flycatcher. Very common summer visitor. Breeds.
55. *Tyrannus tyrannus* (444), Kingbird. Common migrant. Not observed during summer.
56. *Myiarchus crinitus* (452), Crested Flycatcher. Summer visitor, not common.
57. *Sayornis phæbe* (456), Phæbe. Observed only in winter. Common in Wans' Co. Breeds.
58. *Contopus virens* (461), Wood Pewee. Common summer visitor. Nidificates.
59. *Octocoris alpestris* (474), Horned Lark. Abundant winter visitor. Probably one of the numerous sub-species.
60. *Cyanocitta cristata* (477), Bluejay. Tolerably common resident. Breeds.
61. *Corvus americana* (488), American Crow. Abundant resident. Nidificates.
62. *Molothrus ater* (495), Cowbird. Common migrant.
63. *Molothrus ater obscurus* (495a), Dwarf Cowbird. Abundant summer visitor. Breeds. Eggs usually found in nests of Bell's Vireo, but sometimes in Mockingbirds', Cardinals', Bluebirds', and Tanagers'.
64. *Xanthocephalus xanthocephalus* (497), Yellow-headed Blackbird. A migrant, irregular.
65. *Agelaius phœniceus* (498), Red-winged Blackbird. Migrant, common. Scarce as summer resident.
66. *Sturnella magna* (501), Meadow Lark. Common resident. Breeds.
67. *Icterus spurius* (506), Orchard Oriole. Very common summer visitor. Nidificates.
68. *Scolecophagus cyanocephalus* (509), Rusty Blackbird. Common in winter. Nidificates.
69. *Quiscalus quiscula cæneus* (511b), Bronzed Grackle. Abundant summer visitant.
70. *Loxia curvirostra stricklandi* (521a), Mexican Crossbill. One flock seen December 24, 1886.
71. *Acanthus linaria* (528), Redpoll. One seen in winter of 1888.
72. *Spinus tristis* (529), American Goldfinch. Abundant winter resident.
73. *Spinus pinus* (533), Pine Siskin. Found in company with preceding species.
74. *Calcarius ornatus* (538), Chestnut-collared Longspur. Winter visitor.
75. *Poæcetes gramineus* (540), Vesper Sparrow. Winter resident.
76. *Ammodramus savannarum passerinus* (546), Grasshopper Sparrow. Common summer visitor. Breeds. I do not find this to be *A. australis*.
77. *Chondestes grammica* (552), Lark Sparrow. Abundant summer visitor. Nidificates.
78. *Zonotrichia querula* (553), Harris's Sparrow. Common winter visitor.
79. *Zonotrichia leucophrys* (554), White-crowned Sparrow. Common winter resident.
80. *Zonotrichia albicollis* (559), White-throated Sparrow. Common winter resident.
81. *Junco hyemalis* (567), Slate-colored Junco. Common winter visitor.
82. *Pipilo erythrophthalmus* (587), Towhee. Common winter visitor.
83. *Cardinalis cardinalis* (593), Cardinal. Abundant resident. Breeds.
84. *Habia ludoviciana* (595), Rose-breasted Grosbeak. Migrant.
85. *Guiraca cærulea* (597), Blue Grosbeak. Rare summer visitor.
86. *Passerina cyanea* (598), Indigo Bunting. Common migrant. Scarce summer resident.
87. *Passerina amoena* (599), Lazuli Bunting. One pair seen several times in the spring.
88. *Passerina ciris* (601), Painted Bunting.
89. *Spiza americana* (604), Dickcissel. Abundant summer resident. Nidificates.
90. *Piranga rubra* (610), Summer Tanager. Summer resident. Breeds.
91. *Progne subis* (611), Purple Martin. Abundant summer visitor. Nidificates.
92. *Petrochelidon lunifrons* (612), Cliff Swallow. Abundant in summer. Nidificates.
93. *Chelidon erythrogaster* (613), Barn Swallow. One seen.
94. *Ampelis cedrorum* (619), Cedar Wax-wing. Abundant in winter.
95. *Lanius ludovicianus excubitorides* (622a), White-rumped Shrike. Common winter resident.
96. *Vireo olivaceus* (624), Red-eyed Vireo. Common migrant.
97. *Vireo flavifrons* (628), Yellow-throated Vireo. Common migrant.

98. *Vireo atricapillus* (630), Black-capped Vireo. Summer visitor, not common.

99. *Vireo noveboracensis* (631), White-eyed Vireo. Abundant migrant.

100. *Vireo belli* (633), Bell's Vireo. Abundant summer visitor. Nidificates.

101. *Mniotilta varia* (636), Black and White Warbler. Common migrant.

102. *Helminthophila ruficapilla* (645), Nashville Warbler. Migrant.

103. *Compsothlypis americana* (648), Parula Warbler. Very common migrant.

104. *Dendroica aestiva* (652), Yellow Warbler. Summer visitor. Nidificates.

105. *Dendroica coronata* (655), Myrtle Warbler. Common winter resident.

106. *Seiurus motacilla* (676), Louisiana Water Thrush. Migrant.

107. *Icteria virens* (683), Yellow-breasted Chat. Migrant and summer resident.

108. *Setophaga ruticilla* (687), American Redstart. A migrant.

109. *Anthus pennsylvanicus* (697), American Pipit. Common winter resident.

110. *Mimus polyglottos* (703), Mockingbird. Very common resident. Nidificates.

111. *Galeoscoptes carolinensis* (704), Catbird. Migrant not uncommon.

112. *Harpophynchus rufus* (705), Brown Thrasher. Common winter resident.

113. *Catherpes conspersus mexicanus* (717a), Cañon Wren. Scarce.

114. *Thryothorus ludovicianus* (719), Carolina Wren. Common resident. Nidificates.

115. *Thryothorus bewickii bairdi* (719b), Baird's Wren. Resident, not common. Nidificates.

116. *Certhia familiaris americana* (726), Brown Creeper. Common winter resident.

117. *Sitta carolinensis culeata* (727a), Slender-billed Nuthatch. Common in winter.

118. *Parus bicolor* (731), Tufted Titmouse. Common resident. Breeds.

119. *Parus carolinensis* (736), Carolina Chickadee. Common resident. Nidificates.

120. *Regulus satrapa* (748), Golden-crowned Kinglet. Winter resident.

121. *Regulus calendula* (749), Ruby-crowned Kinglet. Abundant winter resident.

122. *Poliophtila cerulea* (751), Blue-gray Gnatcatcher. Common in summer. Nidificates.

123. *Turdus mustelinus* (755), Wood Thrush. Common in winter.

124. *Merula migratoria* (761), American Robin. Abundant in winter.

125. *Sialia sialis* (766), Bluebird. Rather common resident. Nidificates.

I would be pleased to receive additions or corrections from anyone who has collected near Waco.

Austin, Texas.

Elanoides.

Evening Grosbeaks Again Seen.

IN MASSACHUSETTS.

Mr. L. W. Newell reports that he has in his possession for mounting two Evening Grosbeaks, taken from a large flock at Reading, Mass., on April 7, 1890, by Mr. Chas. A. Loring, manager of the N. E. Newspaper Union. Our northern visitors are making us a prolonged visit.

IN NEW YORK.

This time at Ballston Spa, N.Y., where three (3) fine ♂ specimens were seen by myself. It registered 27° above, and there were three inches of snow on the ground. When first seen they were picking up sand, etc., on a bare bit of ground, but soon took wing and alighted in a maple near, but before I could step into the house for my gun, had departed for parts unknown, thus foiling me in my attempt to secure a specimen.

S. R. Ingersoll.

March 30.

IN JORDAN, ONONDAGA CO., N.Y.

On February 11th, while in Jordan, N.Y., a peculiar looking bird flew and lit almost over my head. A second glance showed to me that it was a ♀ Evening Grosbeak. I sent a boy after a shot-gun and I watched the bird. She seemed very tame, as I stood within twenty feet of her all the time the boy was gone. But luck was against me, and the boy could not get a gun, and I had to go and get the gun and leave the boy to watch the bird. Well, to make the story short, while I was after the gun, the buss with bells on their horses went lumbering along under my bird, bound for depot to meet the next train, and my bird, the boy said, "took a sneak towards the other side of (the village) Jordan"; and in a diligent search of three hours I failed to discover her. But as there are plenty of large Norway spruce and other evergreen trees in the village, a bird of that size and their habits, during the middle of the day, would have been easily overlooked. I have skins in my cabinet of ♂ and ♀ of this species, and am positive as to the identity.

E. G. Tabor.

Meridian, N.Y.

IN OHIO.

On the 10th of December, 1889, an Evening Grosbeak (*Hesperiphona vespertina*), which was feeding on maple seeds on the campus in front of one of the buildings, was shot by Mr. George Osburn and presented to Prof. T. H. Tight, who identified and placed it in the University's collection.

This, I believe, is the second record of its occurrence in Ohio, the first being recorded by Dr. Kirtland in 1860. *N. G. Buxton.*

Denison University, Granville, Ohio, April 4, 1890.

IN MINNESOTA.

Since receiving your letter the Evening Grosbeaks seem to have left here; I have only seen one flock of seven females. The day before I received the letter there was a large flock of the handsomest and largest males that I have ever seen, in the box-elder trees near our place. They may come around as thick as ever but I doubt it as the bulk always leaves about this time every spring. Some remain as late as April 15th and 20th.

The Waxwings are seen occasionally.

I see by the last O. & O. the Evening Grosbeak has commenced coming to the eastern states. It probably won't be long before they come down there as thick as they do up this way. Ten or more years ago I seldom saw them, probably because they didn't come into the town as they do now. They feed almost exclusively on the box-elder seeds, and box-elder trees have been put out as shade trees extensively during the last ten years. I have stood within three feet of them while eating the seeds, and they hardly seem to mind it. A boy caught one, a ♂, about two months ago, and it is now kept in a cage in a barber-shop here and seems to stand the confinement very well.

Redwing, Minn., March 25. *C. B. Johnson.*

What a Pet Theory Suggests.

I wonder if Mr. Cantwell's pet — theory is a singer. We are inclined to think it a Hummer. What a sad mistake in Nature that the Cowbird is as small as she is; were she the size of the domestic hen, with steam attached for cooking purposes, how nicely she could be utilized in furnishing Easter eggs for the markets.

Mossback.

[This reminds us of a squib that went the rounds a while since. A Yankee invented a trap-door attachment to be used in connection with a hen's nest. The weight of an egg would open it, passing through, relieved of the weight it would close. A hen after laying,

looking, would see no egg and repeat the operation; in this way a fine series (full set) would be obtained. The only reason that finally made it unpopular was that all the hens on which it was tried, ruined their constitutions in endeavoring to deposit eggs faster than the trap let them out.—*Editor.*]

Wants Size of Eagle Kept Within Scientific Limits.

Since sending your February number the writer has acquired some information in the Eagle line which is quite extraordinary and should be pondered well by every ornithologist.

While in San Benito County last week, a gentleman known as "Dynamite" told us at the breakfast table about an eagle he saw the day before which was as big as a three-year-old heifer. I asked him, just for science sake, what he thought it measured from tip to tip. "Well sir, I sized up that feller accurate with my eye and he was just about fourteen feet, three inches and a quarter. I've seen a good many eagles but this one beat 'em all. When he was standing on a hillside half a mile from me his legs looked a yard apart."

"Dynamite" is a respected citizen now carrying on extensive business operations in "Tar spring cañon," where he observed this phenomenal bird, and certainly his testimony will be of interest to our friend "Texas Ben," and perhaps (who knows?) prove a connecting link in the chain of facts which establish the supremacy in size of our proud eagle — unpatriotic "scientists" to the contrary notwithstanding. Thus it is seen how careful, unprejudiced, though unlearned observers may bring to light the truth and cause exalted ignorance to hide its head in very shame. Alas!

Alameda, Cal., March, 1890.

H. R. Taylor.

No Rarefied Air in This.

You wind up your racket with Texas Ben. Texas Ben is a well-known character. Now what are the facts? They are that our scientific bird men are off. They should extend their boundary line on the eagle business. While in Van Wert, Ohio, six eagles passed through our hands, three Bald and three Gray. They measured from tip to tip as follows: Gray No. 1, 7 ft. 8 in.; No. 2, 7 ft. 6 in.; No. 3, 7 ft. 4 in.; Bald No. 1, 7 ft. 9 in.; No. 2, 7 ft. 5 in.; No. 3, 7 ft. 6 in. We know these to be facts, for we were there and did the measuring.

Cheboggan, Mich.

S. Rader.

THE
ORNITHOLOGIST^{AND}OOLOGIST

A Monthly Magazine of

NATURAL HISTORY,

ESPECIALLY DEVOTED TO THE STUDY OF

BIRDS,

THEIR NESTS AND EGGS,

and to the

INTERESTS OF NATURALISTS.

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FRANK A. BATES,

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Editorial.

"The fact is, I am handicapped by some scientific ornithologist." This is no imaginary quotation, but is from a letter written by a gentleman who understands his situation. It is not the only instance by any means in which we have had our attention called to cases where it was honestly believed that there was a tendency on the part of some who set themselves up as being the head centre of all ornithological wisdom to freeze out any enterprise of a "lesser light." We even have known of an instance where a party *regretted that he could not withdraw a recommendation*, because certain great guns did not smile! A short time since a gentleman related his experience in soliciting a friendly word. It was as amusing to us as an account we once read of a call upon a Bramah. Now if this is the state of affairs it is time that it was ventilated. We hardly believe our American ornithologists are ready to be nestled, guzzled or bulldozed. We are not personally interested except upon general principles.

What is most wanted just now is a work on American ornithology, well illustrated with sensible wood cuts and at a price which will enable all to procure it, a book by which birds can be readily identified. The popularity of

Coues' Key was in a large measure due to the illustrations. Seldom a day passes in which we are not asked for a book that contains illustrations. We hope that some enterprising publisher will endeavor to meet this want, and we think it would prove a paying investment.

Unlike the dying swan whose last note is said to be its sweetest, the Oölogists' Exchange expired with an editorial arraignment of our ornithologists and oölogists. It is not to be wondered at, that our naturalists have to contend with an ignorant and unjust opposition when publications that *pretend* to represent them rarely defend, but stand ever ready to slur, and furnish the public press with texts for increased tirades.

We protest against any statement to the effect that "the method is widely pursued by the older ornithologists, to shoot everything that comes in their range, leaving half to rot where they drop because they do not care to take the trouble to pick them up."

Such bosh is a stupid libel, and every true ornithologist will resent it. We don't know how it strikes others but we are tired of such nonsense.

Less Protection—More Protection.

The duty on glass eyes is 45 per cent. Every taxidermist pays this tax. *Free trade would lower the price just that amount.*

Bird skins for sale, which means to be parted with either by exchange or trade, are taxed 25 per cent. duty. A dealer has to pay this; a private individual may state that they are not for sale, and they are passed free. He then changes his mind and parts with them. Is this tax to prevent the use of foreign birds and protect the industry of using our native birds for manufacturing purposes? *Free trade would not be a bad reform in this instance.*

This great country requires that a duty be placed on birds' eggs under certain conditions (if for sale). This is to protect our native birds in supplying the home market. *Free trade would not be a terrible loss.*

Every entomologist who sticks a pin through a potato bug, pays the government 25 per cent. tax on the pin he uses. This is protection of our insects. *Free trade would be a hard one for them.*

We are not prepared to place ourselves on record in favor of a wholesale free trade, but emphatically claim that in the cases we point out, it would be to the interests of our natural-

ists to have the tariff revised. If birds are to be used for millinery purposes, putting the skins on the free list will place the brighter plumage of tropical birds at a lower price and thus protect our natives. *Birds will be used for millinery purposes*, either as a whole or parts, for years to come.

In this we shall be pleased to join hands with the FIBRE AND FABRIC for free trade to protect our birds.

Let us Have a Popular Vote.

As we have previously intimated we have heard many criticisms on the changing, some two years since, of the common names of a few of our well-known birds by the A. O. U., which if we are not in error was done by a very few, on their own responsibility, while it may be a very popular change, and if so we certainly would offer no objections. We believe it will be of interest to all our readers to know what is the general opinion. We give below a list of four species, first as they were previously known, and second as named by the A. O. U. We request all who read this, whether a subscriber or not, if interested in ornithology to send us his vote which he prefers, the old, or the new, and we will announce the result at a future time. We would be glad to have our exchanges obtain a like opinion from their readers and we will announce it at the same time.

OLD—COMMON NAMES.

- A. O. U. No. 534. Snow Bunting.
 540. Grass Finch, Bay-winged Bunting.
 546. Yellow-winged Sparrow.
 604. Black-throated Bunting.

NEW—A. O. U. NAMES.

- A. O. U. No. 534. Snowflake.
 540. Vesper Sparrow.
 546. Grasshopper Sparrow.
 604. Dickeissel.

Brief Notes.

In the Carnival number of the Halifax (N.S.) Evening Mail, Mr. Harry Piers gives us a short biographical notice of a few of the "Common Birds of Nova Scotia," written in such a pleasing vein that it arrests the attention of the most casual reader. The descriptions fairly smack of the various scenes peculiar to each bird, and his rendition of their life in their own haunts is particularly attractive.

WHAT IS IT?—A Mr. White from Michigan, who has been exploring the Okefeenokee Swamp, Georgia, says he killed an animal there of which natural history gives

no account. It resembled a turtle somewhat, but was 41-2 feet long and 2 feet wide. The back was covered with a hard, scaly substance somewhat like an alligator's hide, and the creature had a long, hooked beak. —[Boston Journal.

We notice in the April issue of the Auk (Vol. VII, p. 204) in a note on the occurrence of the Turkey Vulture in Massachusetts the writer has overlooked a capture in Boston Harbor, May 30, 1889, and recorded (O. & O. Vol. XIV, p. 95) at that time. The O. & O. should be read more carefully.

Our attention has been called by several subscribers to the fact that a publisher of an amateur publication has advertised back volumes of the O. & O. for sale at 65 cents each. The price for Vols. IX to XV is \$1.00 each and will not be less. The party made the offer, we presume, on a stock of one copy that we have always furnished him gratuitously. We assure our readers that clean, perfect copies cannot be procured from him or any other party at less than our regular price. We take this opportunity to again notify news agents and dealers that the O. & O. is not to be advertised at cut rates, and we mean it.

He was an egg collector,
 Of nests a good detector;
 So he was.

He could climb a tree instant,
 From the time he was infant;
 Yes he could.

But one day our fine collector,
 I am the sad relator;
 Yes I am,

Saw a nest on limb distant,
 And shinned out, quite gallant;
 So he did.

When he met an agitator,
 That made him bellow like a 'gaitor;
 Yes it did.

A hornet was the tenant,
 With a sting long as a pennant;
 Yes it was!

He fell, like a knocked-out gladiator,
 And it proved a dislocator
 Of his neck.

The moral is important,
 Stings come when unexpectant;
 Yes they do.

Fred J. Brezee writes, "I have mounted fifty-six Snowy Owls this season." The first one was from Iowa, Nov. 18. Nearly all came from a small town in Nebraska.

March 30, 1890, first large flock of robins seen at Halifax, N.S. H. Austen.

The Wolverine Naturalist for March is reduced to less than three pages of reading matter. We fear it will be a little discouraging to those subscribers who are promised a 24-page monthly.

Was it suicide? Last fall Capt. R. F. Nickerson, with another party while hunting, drove a fox out on to a point of land, when pressed by the dogs. Reynard deliberately plunged into the surf and was drowned. The body was obtained by using a boat.

By referring to our advertising page it will be seen that Mr. John N. Sage has charge of the oological department of the Observer. Mr. Sage is a well-known ornithologist. He has been a subscriber for the O. & O. for many years.

Dr. A. P. Chadbourne has added two of the original specimens of Maynard's Coast Jay to his collection.

AUDUBON'S "BIRDS OF AMERICA."—Twenty-two of the fortnightly numbers of Audubon's "Birds of

America," also some of his large plates and engravings and portrait of himself with autograph, are now in possession of Rev. W. McCulloch, D.D., Truro, Nova Scotia. They were presented by Audubon to the late Prof. McCulloch, of Dalhousie College, Halifax, who became acquainted with the naturalist when the latter visited Nova Scotia in 1833. Prof. McCulloch was also deeply interested in ornithology and presented Audubon with several specimens from his own collection.—[Toronto Mail.

"I will give fifty dollars to have the O. & O. cease publication." This was an actual offer. We suggest the way to keep it out of sight would be to buy it up monthly at 10 cents per copy.

Mr. Albert Lano wishes us to inform his friends that he has removed to Madison, Minn.

Mr. R. B. Simpson, of Warren, Pa., reports a Belted Kingfisher on Jan. 27th, and a Killdeer on Feb. 8th.

FROM THE GERMAN: Old Professor B., director of the Museum of Natural History at Berlin, a very enthusiastic collector of birds' eggs, was searching for a long time for a nest of a rare species of Hawk, and finally discovers his quest way up in a high tree. In his anxiety to secure the prize he forgets his great age, and despite the great size of the tree buckles his climbing irons to his feet and climbs the tree with great difficulty and danger; while two boys, who have followed him at a distance wondering what in heaven's name the old professor is running about and looking for, stand, with open mouths and distended eyes, watching his movements, and the following colloquy ensues:

Fred. Come quick, Peter. Look! Look! The professor is putting on his skates in the summer.

Peter. Don't go near him, Fred; he is mad. The old fellow is climbing with his skates up yonder tree.

Fred. My! See! He is taking out the Hawk's eggs! What the devil does he want them for?

Peter. You sheephead! What will he want them for? He will bake *Hawkpannkake* for himself. Otilie Borris.

Notes from Lake Mills, Wis.

Mar. 5, one single robin seen flying north.

Jan. 26, first Shore Larks put in an appearance and were common by first of Feb.

Jan. 28, Cedar Waxwings; common ever since.

Mar. 4, a single Mourning Dove was captured here—something very unusual.

Evening Grosbeaks arrived Nov. 5, 1889, and have been common ever since, have a fine old male alive in a cage.

A Flicker was seen on Jan. 20.

Nov. 1889, Bohemian Waxwings, flock of five found feeding on Juniper berries—have been seen on several occasions since.

Along the beach of the lake I collected Baird's Sandpiper (Sept. 20, 1889), Black-bellied Plover (Oct. 2, 1889), Sanderling (Oct. 3, 1889). Also found both the Yellowlegs and Killdeers abundant. Over the water could be found Bonaparte's Gulls, Common and Forster's Terns and numbers of little Black Tern. Also secured a fine specimen of the Osprey. White-wing, Surf Duck, American Golden-eye, White Pelican, Trumpeter Swan and Double-crested Cormorants were seen at various times. Red-breasted Rails were found quite numerous in the wild rice swamps.

Great-blue, Green, Night and Snowy Herons were also noticed during the fall months.

Horned and Red-bellied Grebes and Loons remained till the lake froze up.

Lapland Longspurs and Snow Buntings could be found most any time in certain marshes.

Feb. 20. Killed an Evening Grosbeak with a yellow patch on the side of the head, and several others that had the under mandible longer and the tip turned over the upper one.

An ad. Swainson's Hawk has remained here at a certain place all winter and refuses to be made a specimen of.

The winter has been very mild here, but on Mar. 1 a heavy snowstorm set in and drove huge flocks of Shore Larks, Snow Buntings, Longspurs and Redpoll right into town and along the streets, in order to find a living. I threw a quantity of bird seed out the back door of the house and soon had an army of Redpolls around.

On the latter part of Feb. made a call on Chas. F. Carr of Madison, and enjoyed a "bird talk" with him.

Will begin work on the "List of birds of Minnesota" in a day or so.

Here is a fish story to mate Mr. Harrison's deer story. "A young man from this place went fishing in the lake and all he caught was a small 'chub' about two inches long. Disgusted he was about to throw the thing away, when he thought he might as well get even with the fish in some way, so he tied a whistle to his tail and let him go. Next year he went fishing again and caught the same identical fish. The fish was the same size, but the whistle had grown into a fog-horn."

G. G. CANTWELL.

New Publications.

New Work on Taxidermy.

By the kindness of the author, Mr. Oliver Davie, of Columbus, Ohio, we have had the pleasure of examining the original plates of this forthcoming work.

Six years ago, Mr. Davie, feeling that there was a need and a desire of a more complete work on the art, conceived this book, and at that time commenced his labors, which have now culminated in a most brilliant success.

The text was written by Mr. Davie, and the illustrations have been drawn by Dr. Theodore Jasper, well known to everyone worthy to be called a naturalist.

It was the original intention to produce this work in 12 monthly parts, at \$1.00 each, but the plan of production has been changed and it will be issued as an *edition de luxe*, royal octavo, tastefully bound in cloth, with uncut edges and gilt top, at \$5.00 per copy, provided that 500 *bona fide* subscribers can be secured. About 100 of this number have been secured. There are fifty full page plates with several hundred figures representing every style in the skinning and mounting of birds,

mammals, reptiles and fishes, and of characteristic attitudes of various members of the animal kingdom.

Plate 1, Fig. 1, shows where the first cut is made in skinning a bird, a common robin being taken for example, and each successive step is plainly shown by figure after figure, till in Plate 3 the bird is shown mounted on the drying perch, and wrapped in its covering of threads.

Following this are several plates showing the variations in the various processes, such as the mode known as the "breast-cut method"; cutting open the head, when the neck cannot be drawn over it, etc.

Next come three plates showing the various forms and methods used in making up "scientific skins," adapted to short necks and long necks, perchers, waders and swimmers.

Then come plates showing different positions of single birds and groups, each varying from the other, and among which may be singled out for their excellence, eagles with wings closed and spread, and a beautiful pair of Whooping Cranes.

The mammals are treated in the same detailed and painstaking manner, by illustrating a fox squirrel from the first cut to the last touch, and a deer head from the beginning to the end.

In the larger mammals, the methods of building a frame-work and modelling in clay, for the horse, the dog and the elephant, are shown in all their detail, together with very fine figures representing the anatomy of the horse and dog, and positions of minor animals.

Neither are the fishes and reptiles neglected, since the same plan will be followed as has been shown in treating of the higher animals.

We have not as yet seen any of the text, which will constitute the body of the work, but we are promised simple, clear and concise instructions, conforming and referring to the plates throughout, and explaining all the various tricks and troubles of the art, without discussing the advantages and disadvantages of pet theories.

Besides the text a concise description will face every plate, which will enable immediate reference.

While perhaps the drawing and the expression of some of the figures are defective, we cannot but admire the push of Mr. Davie in stepping so boldly over the heads of his predecessors in launching out into an undertaking so far in advance of anything which has been before attempted.

We congratulate Mr. Davie and his colleague, Dr. Jasper, on the success of their work so far as it has progressed, and sincerely hope that their labors will receive the reward which is so justly theirs.

We have just received some forms on which to keep a record of Bird observations. They consist of sheets appropriately ruled for thirty-one days. The names of species likely to be seen are printed and blank lines are left for others. They were placed in our hands by the author, Mr. C. F. Batcher, Cambridge, Mass., Associate editor of the Auk, and will be mailed to any party at the nominal price of 10 cents per set.

Contributions to Science, Vol. I, No. 3, (October, 1889) contains 4 colored plates and several wood cut illustrations. There are the usual notes of interest and value to ornithologists. As we turn to the "Life size portrait" of a Cory's Gannet, sitting in a majestic position rivalling that of the ideal Great Auk, in its half-closed winking eye we think that we detect an expression that seems to say, "Didn't Maynard trump a trick when he named me?"

Zoe, a biological journal, 32-page monthly, published on the last day of each month. Frank H. Vaslit, editor, San Francisco, Cal. As we go to press the first number (March) reaches us. In an introduction it is announced that this new publication is designed as a medium for recording the observations of amateurs as well as the working naturalists, particularly of the western part of North America; that the bulky compilations which delight the soul of the encyclopedian scientist will not appear in the pages, and pains will be taken, as much as possible, to disembarass the grain of truth from its attendant mass of chaff. And, by Jove, we wish them fun *running the sifter*.

Correspondence.

Editor of O. & O.:

In looking over the "List of the Birds of Onondaga County," I find that the Blue-headed Vireo (*Vireo solitarius*) has not been mentioned. In my collection is one which I shot May 2, 1889, in a small piece of woods just out of the city limits. I have also a Golden-winged Warbler (*II. chrysoptera*) which I shot May 7, 1888, in the same woods.

Howard D. Flint.

Syracuse, N. Y.

MAY, 1890.

VOL. XV.

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AND

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SAN FRANCISCO, CAL.

BIRD SKINS AND EGGS OF SOUTHERN ARIZONA.

During the season of 1890 I shall collect, for scientific purposes, specimens in Natural History of the mountainous portions of Arizona. Special attention will be given to the rare and little known species, and to persons desiring such material further information will be given.

OTHO C. POLING - - - FORT HUACHUCA, A.T.

ENTOMOLOGISTS, ATTENTION!

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Vol. XV.

BOSTON, MASS., MAY, 1890.

No. 5.

Egg-Freaks or Egg-Frauds?

Encouraged by the editorial on egg-frauds in the March number of this Journal, I am tempted to transcribe a blurred page from my early experience in exchanging, before I burn the record of many outlawed exchanges and purchases.

Remember, I am an old-time collector, beginning when oölogy was in its infancy in this country, have lived through the Dark Ages, and possibly have contributed my mite to raise the standard of exchange. I used to send specimens to all collectors and dealers east and west, to the "rising oölogists," and even to the veteran ornithologists of the country press. Oh, I have tried them all, and have a queer lot of "souvenirs" to pay for my inexperience. It was then that I formed the rule if there was a suspicion of anything "shady" about a transaction, simply to pocket the loss and drop the correspondent as quickly as I would a lousy nest of the European House Sparrow.

Perhaps some erred through ignorance, and some sent what had been sent to them, assuming no responsibility. Perhaps some of the great men deputized the packing, so I will only cite cases where I find the accompanying letters are plain "give-aways."

I still have in my possession (O, yes, I keep them all!) a long, white monstrosity, more like a goose egg than anything else, sent to me at a good round price as a Prairie Falcon's egg. And this was done by a western collector and writer now well known to fame. The readers of the O. & O. would be surprised if I could be persuaded to give them his name.

From another western collector and writer (who also does not let his light shine under a bushel), to whom I sent several dollars for Rosy Spoonbill's eggs, I received the pale, worn European types, so common and cheap abroad.

To still another collector in this unconscion-

able West I sent seventy-five cents apiece for three cracked Saw-whet Owl's eggs. This enterprising collector even went so far as to send me in advance a nicely executed diagram of the eggs, the position of cracks and mended fractures. And what do you think he sent me? The poorest specimens of Red-shouldered Hawk's eggs I ever saw. This was indeed "carrying coals to Newcastle." Perhaps he thought J. M. W. had never seen a *Buteo's* egg! And seventy-five cents apiece! Why, to-day, if I was a dealer I would send him one hundred nest-washed eggs of *B. lineatus*, now on hand in original sets, at ten cents each. Most of these eggs were taken simply to prevent farmers from shooting the old birds while covering the incubated eggs.

I cannot give a full list of the contents of my drawer of curiosities in this line — *memorabilia* of a dark age of oölogy, when data was scanty, specimens few, and some collectors (shall I say?) unscrupulous. I only refer to a few specimen nest-eggs. Here is an *unblown* egg of Sharp-shinned Hawk sent by a collector who has been on government surveys. That manipulated egg of *Gallus domesticus* was sent to me from an unknown but youthful source, as an egg of the MEXICAN CONDOR. Those are a set of Grey Eagle's eggs, if you know what *they* are, (I don't), taken also, of course, by a "rising ornithologist," and taken, the notes say, "on top of a mountain." By this time these two "rising" oölogists should be wholly risen or at the zenith of their careers; but I am afraid they will never outdo the "Condor's" egg, which is hand-painted in original colors.

Look at these Black Hawk's eggs. That one with a broad *Sancti johannis* band around it, said to have been taken in Wyoming or adjacent territory by Mr. R. Ridgway, was sent by a great dealer in order "to console me for the disappointment in not forwarding a Bald Eagle's egg," for which I had sent a five-dollar note. These three Hummers' nests

with contents purported to be types of Pacific coast races, but they are saddled on our own humble and lichen-covered maple twigs, and are undeniably Ruby-throats. The eastern collector and dealer who sent me the Hummer's nests and eggs is dead. A locomotive engine could not draw his name from me now for publication.

Nor would it be any gain to our cause to ever disclose the names of those western egg-men whose eccentricities made my early collecting days very lively indeed. We trust, indeed we feel quite sure, that they have long ago seen the errors of their way and repented. It is given out on good authority that some of them are hard at work trying to deduce a new sub-species from an irregular scutellation of the *tarsi*, and an apparent lack of color on the *retrices* after the summer moult.

In the great standing army of oölogists which fills our land, we are fain to believe are now enrolled only men of honor, and in the new and brighter era of our beloved science we will try to forget the freaks and "mistakes" of an obscure past.

J. M. W.

An Interval Between the Laying of Eggs, etc.

Some time ago I read an article by Mr. McLaughlin in the O. & O. to the effect that when a bird only laid two eggs to the set she didn't lay them on consecutive days, but dropped a day between laying the first and second eggs. I have only had occasion to test the accuracy of his statement once, and that was a Whip-poor-will in 1888, and she missed a day exactly as he stated. Now all this is merely introductory to a theory of my own, viz., that when the Acadian Flycatcher and Wood Pewee lay three eggs to the set they are at least four days in so doing, and I hereby present my facts.

May 29, 1889, I observed an Acadian's nest with two eggs in it. May 30th, still two eggs. May 31st, took set of three from the nest. June 1st, I observed two Acadians' nests with one egg each. June 3d, both nests contained only two eggs. June 5th, took a set of three from each nest. June 6th, Wood Pewee's nest (two eggs observed). June 7th, still only two eggs. June 8th, three eggs in nest.

The evidence, I must confess, is rather slim, but it all points one way, and I mean to work up the matter this year. Last year I did not appreciate the fact until May 30th, and so did

not then have much opportunity of testing my theory.

Has any one ever noticed any symptoms of irregularity in the laying of the Cardinal? I have on several occasions known them to miss a day or two while laying, and on one occasion in 1885 I found a nest containing one egg nearly fresh, one about one third incubated, and one about two thirds incubated. Another point in connection with the Cardinal is that nearly twenty-five per cent. of all nests found will have broken eggs in them or else the eggs will be destroyed before the set is completed. I think the Catbird is mostly responsible for this as the nests are usually placed in situations where Catbirds abound, and I once found one sitting on the edge of a Cardinal's nest which contained broken eggs.

Apropos of the Catbird's egg-eating propensities, I saw one last summer settle on a rock near our house with something in his bill, and on searing him he left the remains of an egg of his own species on the rock and departed, so I suppose we must dub him cannibal as well as thief.

While on the question of food I at one time kept two Screech Owls which I used to feed on birds and mice (they would not touch reptiles or insects), but the feature which most astonished me was that they would often bolt small birds such as Warblers, Chipping Sparrows, etc., whole instead of tearing them to pieces, and the way the big bulge would glide down their throat and pass away was truly pathetic, and the way they immediately called for more, still more so.

C. S. Brimley.

Raleigh, N. C.

A Few Spring Notes from Monomoy Island, Mass., 1890.

Brant shooting at Monomoy this spring has been good, better than for several seasons past. The birds arrived early owing to the mildness of the winter and for the same reason they did not linger about as long as usual, the latter part of the migration force leaving April 17th, fully a week or ten days earlier than former seasons. The weather was not violent enough to split the flocks up but this was offset by an influxion of young birds which always insures good sport. April 14th and 15th were exceeding fine days for shooting, the wind blowing very fresh on shore, which caused the birds to swing in over the boxes as the

flood tide drove them from their feeding grounds. It was reported that seventeen Brant were stopped at one discharge by a member of the Monomoy Club.

Canada Geese have been more numerous than usual and quite a number were taken early in April.

Sheldrakes were usually abundant in April, and Scoters have been more numerous than for the last two springs. Long-tailed Ducks, Loons and Golden Eyes seen in usual numbers. Missed seeing our usual several large rafts of Eiders that pass over our "Inward Point" box in April. They were, however, seen in large flocks at the "Point." One fine adult swam to our decoys and was dispatched by a remarkable shot by "Dr. B." How about that second shot Doc.?

Two Pectoral Sandpipers were taken on the salt marshes April 4th, by a Taunton member, making a second record for this bird in the spring at the island. Piping Plover unusually scarce.

Common Gannets have been common, and were noted as abundant on the outside about the 14th of April.

Several Brunnich's Murre and a Razor-billed Auk were taken about April 15th, which I consider late for these birds at Monomoy.

Several Short-eared Owls put in an appearance April 14th, and a fine specimen was taken by "Dr. B." the next day. Two Hudsonian Curlew were seen early in April, and with the exception of the several previously mentioned, and one Snipe, no other birds were seen up to this date, April 18th.

John C. Cahoon.

For the Bristol Branting Club, Monomoy Island, April 18th, 1890.

Notes on the Winter Birds of Clatsop County, Oregon.

My observations here have not been very extensive, as it is but a few months since I left New England, and my time has been pretty well taken up on other work, but perhaps a few notes on the winter birds of Clatsop County will be acceptable to the readers of the O. & O.

On the way out, coming through Wyoming and Idaho, my attention was attracted by the Magpie. Being a bird of peculiar shape and color and quite common by the railroad, they were easily noticed from the car windows.

When coming down the Columbia river ducks were quite plenty, and some geese were seen.

On reaching Astoria I was surprised to see the Gulls so plenty and tame. All through the lower part of the city they were common on the roofs and chimneys and in the streets, remaining on the railings until people passing would get within a few feet of them. I am not very well acquainted with the sea birds but think the three most common species were the Western Herring Gull (*L. occidentalis*), California Gull (*L. californicus*), and the American Mew (*L. brachyrhynchus*).

Grebes, Loons, and Cormorants were also common along the river.

From Astoria, I came up the Youngs and Klaskanine rivers about ten miles to Olney, then about ten miles farther to the head waters of the Klaskanine. This is a rough, hilly country covered with a thick, heavy growth of timber (fir, spruce, cedar, hemlock, and larch).

Birds are not at all plenty here, but by keeping one's eyes and ears open one can soon find quite a variety. The pert little Winter Wrens (*A. t. pacificus*) are common here, being here and there and somewhere else at about the same time. They are just beginning to practise a pretty little song. I think they breed here. By patient watching, troops of active Kinglets (*R. satrapa* or *olivaceus*) and Chickadees (*P. rufescens*) can be located for a few moments.

There is at least one variety of Sparrow seen here in the winter, but I have not identified it as yet. Neither am I sure of one or two varieties of Woodpeckers that I have seen. The Oregon Jay (*P. c. obscurus*) is common, especially where they can get any meat. Steller's Jay (*C. stelleri*) is also seen occasionally. This is a handsome bird with its black-crested head and rich, blue-back wings and breast.

Game birds are not at all plenty here through the winter, especially a severe one like the present, with a large fall of snow. I secured one Grouse with my rifle, the only one I have had a chance to shoot since being here. These Blue Grouse (*C. obscura*) keep in the high trees much of the time through the winter. They are a large, fine looking bird. Their general color is bluish or slatey, with waved markings of gray and black. A bright yellow line of naked, comb-like skin is over the eye.

The Ruffed Grouse (called Pheasant here) (*B. sabinii*) I think can hardly be distinguished from *B. umbellus* of the Eastern states.

I think the Western Red-tailed Hawk is here, and I saw one small Hawk which I could not tell. I am somewhat puzzled on the Owls here as yet. The little California Gnome Owl (*G. gnome*) is here. Have also heard a note that sounds very similar to *Nyctala acadica*. I am told that there is a Screech Owl here also. I hope to get more interesting notes this spring.

C. W. Swallow.

Clatsop Co., Oregon.

Nesting of the Grebes.

I read with interest Mr. Cantwell's comments in a recent O. & O. relative to the nesting of the Pied-billed Grebe. I am glad the subject has been taken up, as the discussion may lead to the settlement of some disputed points. That the Pied-billed Grebe sits on the nest in this locality seems quite evident. At least my observation will corroborate that of Mr. Wm. G. Smith. The first nest discovered last summer contained seven eggs about two thirds incubated. They were exposed; quite probably the bird had left the nest without covering the eggs as my approach was sudden. On August 3d Mr. Smith called my attention to a Grebe sitting on a nest upon a lake within a few yards of his house. He claimed it was the Pied-billed Grebe, and I had no reason to doubt the correctness of his claim, as the bird was in full view, and could easily have been identified with the excellent field glass in his possession.

In the afternoon of the same day we visited a large swamp to secure some sets of the American Eared Grebe. At one end of the swamp among some reeds we found at least thirty nests. Nearly all contained three eggs each, yet a few contained four eggs. They were uncovered with but few exceptions, and in the four sets which I took for my collection incubation was quite well advanced. Upon Mr. Smith's suggestion I examined the eggs and found the upper side to be the warmer, which would hardly have been the case if they had been heated through vegetable decomposition. The nests were made of flags and a kind of swamp grass which grows abundantly in the lakes in this vicinity. This grass is not of a nature to easily decompose. I discovered no evidence of heat from that source. Further observation may lead to a change in views but from present light I must believe, first, that the Grebes sit upon their eggs for the purpose of incubation, and second that their eggs are

not incubated through the heat generated by vegetable decomposition. Testimony from careful observers in the approaching season will dispel all uncertainty.

Wm. Osborn.
Loveland, Colorado.

Nesting of the Mourning Warbler.

On June 27, 1889, while watching a pair of Mourning Warblers (*Geothlypis philadelphia*) feed their young, which had just left the nest, I discovered that there was in the vicinity at least one more pair of birds, and that their labors were not as far advanced as the others was apparent by the presence of the male only, which showed conclusively to me that the female was at the time incubating a long sought for clutch of eggs, and at no great distance from me.

I was in hopes that the male would soon find some insect in his movements through the bushes that would be choice enough for his spouse, but my hopes were in vain. I watched him for an hour and he was not out of sight more than an instant at a time, and during this period he acted as if he wanted to decoy me away from where I was so comfortably seated on a log. So I finally yielded and he led me off some seven or eight rods into a thick patch of undergrowth and briars and gave me the slip. I passed on through the clump and returned by a roundabout way to an old tree top which I could conceal myself in, and which was about three rods from my former position. From here within less than fifteen minutes I had the satisfaction of seeing him alight on a stump with an insect in his bill, and after looking around for a minute drop into a little bunch of hard maple bushes which were about five feet from the stump, and in a short time I saw him return to the top of the stump without the insect.

I suspected something, but held to my place of concealment until the act was repeated, when I went to the spot and commenced parting the bushes, whereupon Mrs. Mourner came out, and although she appeared quite seriously injured I think she would have lived had not I shot her a few minutes later. In the centre of the bunch on the top of a little stump about four inches across from where these bushes grew was the nest, which contained three eggs, which upon examination proved to be about one third incubated. To make the identity positive I collected both of the birds.

The nest, which is before me, was placed about eight inches from the ground, and is composed of weed stalks with layers of leaves mixed in, and is lined with fine black rootlets, which was in fine contrast to the eggs which were of a pinkish-cream ground color when taken, but at present are as follows:

Egg No. 1. .71 x .56. Ground color creamy-white, marked with blotches of reddish-brown, and with lilac-gray shell markings. All of the blotches or markings with the exception of one (which is on the side) are on the larger end, in the form of a wreath.

Egg No. 2. .72 x .58. Ground color creamy-white. All the markings are wreathed around the large end in blotches and spots of light reddish-brown, with lilac-gray shell markings.

Egg No. 3. .71 x .55. Ground color creamy-white with blotches and spots of reddish-brown about equally distributed over the entire surface of the egg, and a wreath of lilac-gray shell marking at the greater end.

E. G. Tabor.

Meridian, N. Y.

Nesting of the Yellow-throated Vireo.

Among the small birds there is no species more interesting to me than the Yellow-throated Vireo (*Vireo flavifrons*) from whatever point of view it is considered, from his first advent in the spring to his latest hour among us. Promptly he announces his arrival from the neighboring grove with his clear mellow whistle. The Warblers and the Finches may unite in a grand harmonious medley, and we listen to the melody as a whole and there is no distinctive feature, but when *flavifrons* joins, or rather when he speaks, for his notes fail to unite in the chorus, so distinct is it, and though all the other birds are singing we hear only his note, clear, firm, steady, vigorous and deliberate.

He seems quite as much entitled to the appellation "solitary" as his blue-headed relative, for one bird or at most a pair is the universal rule, but as there is no rule without an exception so here are occasionally seen two males paying court to one female. It seems a very unsatisfactory state of things to the trio however, and one of continuous conflict on the part of the aspirants to favor, and it soon terminates in the solitary status to at least one of the contestants.

Having entered the matrimonial state, the

pair are in no haste about nesting and family cares, but deliberately examine every tree, every branch, and every spray, not unusually for even weeks, for a suitable fork from which to suspend the cradle. Having fixed upon a site after the most mature deliberation days and even weeks are sometimes consumed in its construction, and a masterpiece of the art it is when the finishing touches are put on, and the bits of lichen that supply the trimming and ornamentation are platted firmly and neatly in their places. The whole structure is very compact and firm, and securely fastened in place. I have seen them labor for a number of days at a foundation, and then have a storm with wind rise and tear it all away—which result is usually followed by abandonment.

I have been amused to see the female flying back and forth from her building nest to the nearest old fence where she gathered lichens and spiders' nests, materials largely used to secure the fragments to the spray and to each other, although not exclusively, for I have observed them draw largely from the webbing of the nests of the common bag worm (*Clisiocampa americana*) for that purpose, as does also her relation, the Red-eyed species. I have not seen the male bird ever attempt to take any part in building the nest, but he follows his mate deliberately about on her excursions after material, and accompanies her back again, singing his best songs in his most vigorous manner at each resting place. I was exceedingly interested last year over the movements of a male bird which I observed singing his best from the summit of a lone hickory, and as I walked under the shade of its low branches he descended from his lofty perch, and with a harsh guttural note began scolding at my intrusion. I paused under a branch and watched his strange evolutions as he came down within a few feet of my head. I soon observed the cause, as his nest was there and the female sitting snugly. He went directly to her and as she slipped quietly away he placed himself firmly in the nest and gazed over its walls with a look which seemed to say "see me protect it, and die before I'll surrender"—and indeed he would not leave till I almost touched him, such was his devotion, and as he at last moved to a contiguous spray he turned his head with a look of fury in his eyes which said as plain as looks could speak, "if I were only big enough I'd fight you to the last."

This species appears to be often afflicted with parasites. I have seen nests that

swarmed with insects of that kind in such immense numbers as to destroy the young birds, or drive the parents away, so that they perished. I have also observed the bird singing in a tree pause between each song to peek among his feathers in a very ludicrous manner.

I shall not soon forget an adventure I had in securing a set of eggs of this species, and which now adorns my cabinet. The site was a lonely place in the woods, and in passing through its shades my attention was arrested by a pair of the birds gathering materials for a nest. On pausing to observe I soon found the location was in a tall chestnut at least sixty feet from the ground, and in due time, equipped with a long rope, I essayed the capture of the nest. The nearest limb was about eighteen feet from the ground, and the method of ascent proposed was to cast one end of the rope over this branch, making it into an improvised ladder by tying short sticks into it at short intervals, and drawing it up and securing the other end to an adjacent tree. The project worked admirably, and the tree was easily mounted; the beautiful nest and eggs were made secure and the descent begun. Beneath was an uncanny place to fall—a dense thicket of heavy brush that seemed scarcely penetrable—but the moment I trusted myself to the rope ladder in descent it parted. I tried too late to clasp the tree and tore my hands badly by contact with the rough bark. There was but a moment's time to think, but that moment was sufficient to fill me with the direst alarm as I recalled to mind the sort of landing place that awaited my coming. Only for an instant, however, and I could scarcely realize that the danger was safely passed and I was gently standing like a wedge in apparently the only standing place, supported on every side by the stubs and stakes the thought of whose sharp points had so recently alarmed me.

A very singular set of this species was one of my captures a few years ago. There were only two eggs and there were a number of days' interval between their deposit. These were the largest eggs of this species I have ever seen, and one of them was of the purest white without a spot, the other heavily and boldly marked like a Kingbird's.

I should fail to do justice to these little birds if I neglected to extol their virtues. Their whole lives seem devoted to the service of men. Their food consists of the insects in their various stages which infest our orchard and forest trees, and the capture of an especially fat caterpillar denuding the orchard of

its foliage is a feast that calls forth their loudest songs of rejoicing—which is high praise, for herein they rank without a peer.

John N. Clark.

Old Saybrook, Conn.

Notes from Lake Forest, Ill.

I am laid up for a few days, the result of a fall from a tree; and thought I would send in a few notes which may be of interest.

Last June I found a set of Wilson's Thrush containing three eggs of the thrush and seven Cowbird's eggs. The nest was on a limb projecting over the sidewalk in a part of the town most frequented.

Last winter has been a very mild one. Shore Larks, Redpolls and Lapland Longspurs have been here all the time. On January 1st I saw two Snowy Owls.

February 8th, a boy brought me a set of three Great Horned Owls, and I found another, February 22d. A set of two was found here, March 1st.

I have never noticed any articles regarding climbers. In trees such as we have here climbers are a necessity in collecting hawks, etc. I have had a pair made with double spurs, about an inch and a half long and bent to an angle of about 45°. I think that with this kind of a climber the feet are better supported in climbing a tree, and the climbers catch into the bark much more satisfactorily. Besides, there is just about half the risk of the climber slipping when there are two spurs, that there is when there is only one.

W. C. Pratt.

March 4, 1890.

Large Set of Eggs of the Pewee.

If I may be pardoned for mentioning something about such a well-known bird I would like to speak of what I thought a remarkably large set of eggs. On May 4, 1888, I collected a Phoebe's (*Sayornis phoebe*) nest containing ten (10) eggs. The nest was placed under a bridge and composed of the usual materials.

I crossed this bridge several times every day during the time occupied in building the nest and depositing the eggs, and never observed but the one pair of birds.

Incubation was slightly begun in some of the eggs.

Mark B. Mills.

Macon, Mich.

[The largest set of this bird's eggs that I know of was seven, and these were found in Chester Co., Pa.—J. P. N.]

The Presence of McCown's and the Chestnut-collared Longspur in Southern Arizona, Near the Mexican Border.

As these two Longspurs have, to my knowledge, been recorded but once from this territory (Apache Co.), winter of 1887-88, John Swinburne, (Auk, Vol. V, No. 3), and as the prairie country east of the Rocky Mountains seems to be their principal habitat, I was much surprised to find them among the commonest species frequenting the elevated plateau in the vicinity of this post. They were at first observed associated with the Mexican Horned Larks feeding together in vast flocks during February. By March, however, the Larks began to pair and the Longspurs separated, the McCown's staying about cattle to a great extent and in flocks of several thousand, the majority being females.

With the Chestnut-collared species, which were in smaller flocks, the males predominated. Single birds and groups of three or four were often seen flying overhead and off from the main flock. Although the country is dry and rocky it affords abundant food and shelter and is well suited to their habits.

Otho C. Poling.

Fort Huachuca, Arizona.

A Remarkable Set of Eggs of the Mountain Chickadee.

The eggs of the Mountain Chickadee (*Parus gambeli*) are usually faintly speckled or entirely unmarked, but I received a set last season which is so remarkable that it is worthy of description.

The nest was found in a hole in a tree, near Fort Klamath, Oregon, on June 8, 1889. The nest was made of hair and soft moss. The parent bird was seen and fully identified, and the collector is familiar with the species, so that there can be no question as to the identification.

The nest contained six eggs, pure white, heavily marked at the larger ends with orange-rufous. On some of the eggs the markings are so heavy that they almost obscure the ground color. The size is normal, but the whole appearance of the eggs is brilliant, and entirely different from any specimens of this species that I have ever seen.

J. P. N.

The Evening Grosbeaks.

Is this the Earliest Record?

IN MASSACHUSETTS.

Editor of O. & O.:

You wished me to let you know the exact date my Evening Grosbeaks were shot. I shot three on the first day of January and two were shot by Mr. Clifford Burr the next day. They were all shot on maple trees. They were seen around here a day or two before they were shot.

John Goulding.

So. Sudbury, Mass., April 21, 1890.

IN NEW YORK.

Editor of O. & O.:

I have to add to the already long list of captures of the Evening Grosbeak a ♂ and ♀ taken on April 21st, from a flock of five in hemlock woods.

A. H. B. Jordan.

Willsborough, Essex Co., N.Y., April 21, 1890.

The Evening Grosbeaks are staying late. Saw a flock of seven females April 28th.

A. H. B. Jordan.

Late Nesting.

August 4, 1876, we found a ♀ Indigo bird building a nest which was about half completed. August 11th, nest complete with four eggs. In due time four young Indigos appeared, which we attempted to raise but failed; three died from injuries received by jumping from the cage to the floor before being able to fly, the fourth died later while we were absent hunting.

August 16, 1885, found a Song Sparrow lining a nest; August 26th, three eggs; August 31st, one egg and two young just hatched. We were then called away, and upon our return (three weeks later) found the nest empty but in good condition. Nest nine feet from P. F. and C.R.R. track over which from twenty-five to thirty trains pass every twenty-four hours.

September 25, 1885, while squirrel hunting, a Mourning Dove flew from her nest to the ground feigning lameness. Nest on a horizontal beech limb against the trunk seven feet from the ground contained two young about a week old. All the above in Van Wert county, Ohio. Were not these late nesting dates?

S. Rader.

Van Wert, Ohio.

A Series of Eggs of the Marsh Hawk.

Mr. Ridgway, in his *Manual of North American Birds*, page 226, says that the eggs of the Marsh Hawk (*Circus hudsonius*) are "white, or bluish-white, usually plain, but often more or less spotted or blotched with pale brown." He also states that the number of eggs laid is from three to eight. The series now before me does not agree with his statements, as none of the eggs are white, and none of the sets contain as few as three, nor as many as eight. Four eggs I consider is the smallest complete set of this bird, while seven is an extreme number. Four to six eggs is probably a correct statement of the usual number laid.

Set I. June 16, 1885. Riverside, Cal. Collected by E. M. Haight. Nest made of sticks and dry tules, on the ground in a bunch of tules which had been bent over. Four eggs, incubation advanced. Bluish-white, unmarked: 1.69 x 1.34; 1.72 x 1.37; 1.72 x 1.34; 1.75 x 1.37. This set contains the smallest sized eggs of this species that I have ever seen.

Set II. June 8, 1883. Ogle County, Ill. Collected by Perry Steele. Nest on the ground in a marsh. Five eggs, fresh. Bluish-white, faintly spotted with drab-gray. There are also a few small spots of drab on two of the eggs: 1.92 x 1.44; 1.88 x 1.35; 1.87 x 1.43; 1.80 x 1.40; 1.81 x 1.38.

Set III. May 19, 1884. Natick, Sunkway Swamp. Collected by J. H. G. Nest of sticks and grass, on the ground, with small bushes and high grass around it. Five eggs, fresh. Bluish-white; three of the eggs are spotted with dark gray, the other two are unmarked: 1.78 x 1.42; 1.77 x 1.43; 1.74 x 1.37; 1.79 x 1.41; 1.78 x 1.42.

Set IV. May 8, 1886. Brushy Prairie, four and a half miles southeast of Baxter, Iowa. Collected by J. W. Preston. Nest of coarse grass stalks and weeds for a rim, lined heavily with soft grass. Neatly made, on ground. Six eggs, advanced. Bluish-white. Four of the eggs are unspotted, but the other two are faintly marked with drab-gray. On three of the eggs there are very curious protuberances which are rough to the touch. They are firmly fastened to the shell, and appear to be some malformation of it, as they will not rub off. I have never seen anything like these on any other eggs: 1.82 x 1.51; 1.85 x 1.43; 1.91 x 1.46; 1.93 x 1.49; 1.90 x 1.45; 1.85 x 1.46.

Set V. May 21, 1889. North Stonington, New London Co., Conn. Collected by "J. M. W." (C. L. Rawson). Nest in bog, of

tangled and matted sheep laurel, on *sphagnum* foundation. Six eggs, fresh. Bluish-white, two of them faintly spotted with drab-gray, and the other four unmarked, except one which has a single spot of burnt umber: 1.83 x 1.42; 1.80 x 1.42; 1.85 x 1.43; 1.88 x 1.48; 1.82 x 1.43; 1.81 x 1.41. The finding of this set was charmingly described in THE ORNITHOLOGIST AND OOLOGIST for March, 1890, by Mr. Rawson.

Set VI. May 18, 1884. Cranberry Bog, Preston, New London Co., Conn. Collected by "J. M. W." (C. L. Rawson). Nest slight. Four eggs, fresh. Bluish-white, one entirely unspotted, which was laid the day the set was taken, and the other three spotted with drab-gray: 1.85 x 1.44; 1.96 x 1.46; 1.78 x 1.47; 1.97 x 1.41. Mr. Rawson visited this nest three times, taking the eggs at his third visit. He also got two other sets from the same pair of birds in 1884, and three sets in 1885.

Set VII. June 9, 1885. Cranberry Bog, New London Co., Conn. Collected by "J. M. W." (C. L. Rawson). Nest embryotic. Five eggs, fresh. Bluish-white, two eggs unmarked, the other three distinctly spotted with cinnamon: 1.85 x 1.38; 1.82 x 1.36; 1.81 x 1.37; 1.85 x 1.35; 1.87 x 1.38. Mr. Rawson took two other sets from this pair of birds in 1885.

Set VIII. May 20, 1882. North Stonington, New London Co., Conn. Collected by "J. M. W." (C. L. Rawson). Nest in big open bog, with few scattering maples. On May 14th the nest contained four eggs which were left to see if more would be laid. On May 20th it was again visited, and Mr. Rawson found it contained *seven* eggs when they were taken. All were fresh, and they are a truly remarkable set. All are bluish-white. One of them is unmarked, three others are faintly marked with drab-gray, but the other three are marked more heavily than any other eggs of this species that I have ever seen. Two of these have large blotches of fawn color, while the third has large spots of burnt umber around the smaller end, and no one would recognize it as an egg of *Circus hudsonius*. As Mr. Rawson well remarks (O. & O. for February, 1884, Vol. IX, page 16): "These were not the mere 'accidental deposits of lymph,' referred to by the late Dr. Brewer, as liable to appear on all plain eggs, but they presented a good superficial design, and the cloudy sub-shell coloring seen on average sets of Red-shouldered Hawks." They measure: 1.78 x 1.45; 1.84 x 1.48; 1.85 x 1.45; 1.84 x 1.45; 1.81 x 1.45; 1.76 x 1.45; 1.79 x 1.48. J. P. N.

Nesting of Anna's Hummingbird.

Of all birds the Hummers never fail to excite our admiration and interest, the more so when we remember that the New World alone is favored with their presence. Anna's Hummingbird (*Trochilus anna*), our largest species, is as interesting as any bird I know. What a picture it makes poised in the air like a fairy, while it gently sips now from this flower, now from that, the nectar it so loves.

Its flight is the very poetry of motion; and when it rests on a little twig or swings to a tiny, swaying vine like some Trogon of the tropics, and casts its little pleading eyes toward you, you almost lose the collector's instinct and wonder if you are not a hardened wretch for once thinking of taking its pretty nest. But if you have a "weakness" for beautiful things, like most of us, you will probably appropriate the lovely nest and eggs if it is your good fortune to find it, and satisfy your conscience with the thought that Madame Hummer will soon build another. She must do it all alone for her lazy husband never offers the least bit of assistance.

It is an interesting sight to watch the building of a Hummer's nest. Often I have seen them collecting the soft cotton-down from willow catkins or from the cottonwood, and watched the bird make trip after trip to get the spider's web which they use with such marvellous skill.

Trochilus anna is not very particular as to location when it begins to think of a home for its young. I have found their nests in orchards, in cactus and in fine cypress, eucalyptus and many other trees. I have seen them forty feet from the ground, and again so low that the cozy structure was discovered by the angry buzzing of the female as she flew from her eggs close by my head. I once saw a nest in a rather odd situation; it was in a locust tree where there were only bare limbs and twigs. Another example of a bird's idiosyncrasy was a nest built about fifteen feet up in a eucalyptus. A dry twig had fallen among some green leaves and shoots next the trunk of the big tree, and on this precarious foundation the Hummingbird had built its nest.

Anna's Hummingbird doubtless raises several broods yearly, for nests are found early and late in the season. My earliest date is February 13th, incubation far advanced. Mr. A. M. Ingersoll found a nest with eggs nearly hatched on January 14th.

The Hummingbird is a cunning as well as

skilful workman, and seldom makes its characteristic buzzing noise when building unless disturbed. It greatly objects to interruptions in its work, and is very pugnacious in enforcing its rights. I have seen one make a Goldfinch retreat most ignominiously when it persisted in alighting close to the Hummer's nest. Instances showing the Hummingbird's extraordinary courage are numerous. They do not hesitate to attack the Western Red-tail (*Buteo borealis calurus*) on occasions.

The nest is usually completed in about nine days. The period of incubation varies. A nest observed by Mr. James Hyde contained young birds in sixteen days. It is a curious circumstance that the eggs are sometimes laid and incubation commenced before the bird has finished building the nest.

It is not the easiest thing to find a Hummingbird's nest, the birds are such deceivers. Often I have twisted my head about in a surprising manner to follow a swift-speeding Hummer which stopped a moment about some tree to buzz and then suddenly darted down to settle on the nest.

Sometimes they appear to fly directly past the tree containing the nest but turn in the air with wonderful rapidity and go like a flash to cover their eggs.

In size and construction the nest of Anna's Hummingbird varies greatly. Very often they are quite large for the size of the bird and decked with beautiful lichens and moss, and I remember one which was exceedingly shallow and built of nothing but willow cotton.

H. R. Taylor.

Alameda, California.

Failures.

There are failures that at the last bring greater pleasures than unlimited success. The beginnings of my oölogical career sprang from the ill luck of a parent Meadow Lark. Her six pretty speckled eggs by mishap were thrown out of the nest, and there I found them safe and sound, but cold, and there was born the desire which started me collecting.

As I peruse the journals of years past, ill luck seems burned on many a page. One entire winter had been spent in preparations for a brilliant season among the lakes of Northwestern Iowa. The outfit was all ready, and so were two eager youths. Rains incessant, and cold winds set in early and lasted late. We succeeded in "mudding it"

two hundred miles, and had reached our field, when a telegram brought to my companion the sad news that his brother had died. Of course that ended one season's collecting, and it might be termed a failure all round.

Two subsequent springs have found me travelling far for a notable hernory where there breeds annually two hundred "Great Blues." To my real disappointment the feeble cries of nestlings greeted my ears each season.

Bubo chances a nest in these woods now and then, and I think myself well acquainted with young Owls. One adventure with them will ever be vivid by the scars which mother Owl left me.

Many years since a pair of Bald Eagles brought out two fine specimens of their kind within a half mile of my father's house, and when I discovered the nest it was not more than fifteen feet from the ground in a small tree, and that accounted for my failure to find it.

All day I had wandered over the wild prairies and through marshy tangle, and at sunset found a nest of the White Crane. Two fine eggs repaid well the effort. Night came on and camp was seven miles away. Cold clouds and a chill, frosty wind made a night without shelter a thing to be dreaded. I lost my way and became confused, for a number of very distant prairie fires sent up a reddish glow against the clouds. A heavy gun and a hunting sack with something of plunder made walking difficult. Near ten o'clock at night the beacon light in the window of a herder's shanty bade me welcome. But to this day I have more to regret the breaking of one of those precious eggs than the lonely night walk.

Little things oftentimes hinder our success. Such is the Cowbird. As a despoiler of homes she is preeminent. Little she cares whose domains she enters. Once I detected the little witch peering longingly at the new made domicile of a little Ruby-throat. I hoped she would deposit one of those lustreless eggs, for I wanted it to tell of. How often has our joy at finding a rare and long sought nest been turned into disgust at the presence of Cowbirds' eggs and the remains of those which would have been a treasure.

One trip I cannot forget. I took another fellow's dog with me to point a few Grouse nests. He was said to be good at it. He was. He pointed the nest and then ate the eggs.

Then there is the old Black Crow. There is much of poetry about a Crow, more of cun-

ning, most of greed. I had hunted many days in one of the choicest ranges of lake and wood to be found in the North. Many rare nests were building. Hope ran high. A flock of unemployed Crows came into the woods and "camped" three days. When they moved on, the best of my marked down sets of eggs went with them, among the rest a set of the Swallow-tailed Kite.

My canvas boat I have mended. I have worn out a costly malarial fever and healed a broken shoulder, but my antipathy for his Sable excellency grows even against my desire.

J. W. Preston.

Baxter, Iowa.

Nesting of Wilson's Thrush in Pennsylvania.

To most of the readers of the O. & O., supposing that they are New Englanders, the Wilson's Thrush (*Turdus fuscescens*) is in all probability one of the most common birds breeding in their locality.

But this is not so in Pennsylvania, for although the bird is a transient visitor in this State it seldom remains to breed.

On the 26th of July, 1889, while on a picnic at Lloydsville, Cambria Co., Pa., and not having anything to do, I wandered up the mountain to pick whortleberries. Just as I reached the summit, a bird of the thrush family started up in front of me, and quickly disappeared in the brush-wood. On going to the spot she had left I found a nest and three eggs. Not deeming identification complete I marked the spot, and on returning about half an hour later I again flushed the bird, getting a better view of her; her tawny color, together with the position and composition of the nest, furnishing identification. As I did not expect to be in the locality again I took the set, though probably incomplete, together with the nest.

The latter was placed a few inches above the level of the ground, presumably on the remains of an old decayed stump; but whatever it was, it was so covered with decayed leaves that it was difficult to tell what the original foundation had been.

The nest was composed of dried grass, rootlets, dead leaves and a shred-like bark, probably that of the grape-vine. There was no lining whatever, except that in the inside the rootlets predominated slightly.

The eggs, as mentioned before, were three

in number, of the usual light greenish-blue color. They measure: .93 x .69; .88 x .67; .89 x .69, and were perfectly fresh, probably being the second set of the season.

Lloyd's station is situated on the side of a spur of the Alleghany mountains, and, according to the Pennsylvania State Geological Survey report, of Blair Co., is 2,180 feet above tide, the nest being at least 150 feet higher, on the summit of the hill, making the altitude of the nest at least 2,300 feet above tide. This altitude was in all probability chosen by the bird to make up for the difference in latitude between this and its regular breeding localities.

On another trip, several miles east of this, I noticed a pair of Juncos (*Junco hyemalis*) apparently making "much ado about nothing," but on closer investigation I discovered a young bird lying on the ground, dead. This has no connection with the Wilson's Thrush, but it may be interesting to know that the Junco, although on the high mountains, breeds as far south as latitude 41° 20'.

Fred O. Koch.

Philadelphia, Pa.

[To the above instance of Wilson's Thrush breeding in Pennsylvania may be added that of a set of four eggs taken May 28, 1887, in Montgomery County, Pa., and now in my cabinet.—J. P. N.]

He Will be More Astonished Before the Year's Out.

We have seen some, and heard of many, large things on wheels; but when it comes to wings, Dynamite's heifer not only takes the cake but removes the bakery also. While we do not doubt Dynamite for a moment we are forced to think he was wearing a pair of magnetic eyes or under the effects of an overdose of *spiritus frumenti*, possibly both. The two in connection with rarefied air would be liable to make a giraffe of a Calliope Hummer.

Another great mistake in old Dame Nature, had she manufactured master Fred's chipmunk into a kid he would knock Buck Ewing out on base ball in the first half of the first inning, at any rate we would respectfully decline catching behind the bat where he did the pitching. As to Harrison's deer story and Cantwell's fog horn we remove our hat.

Mossback.

Was the Change in the Common Names Popular?

ONE OF MANY THAT ARE COMING IN.

Editors of O. & O.:

I notice your request in the April O. & O., asking readers to give their preference for the old or new names of the four species, 534, 540, 546, 604. I for one prefer and think the old names more appropriate, as follows: 534 Snow Bunting, 540 Grass Finch, 546 Yellow-winged Sparrow, 604 Black throated Bunting. While on the subject I should like to mention several others which I consider the old name preferable to the new. They are as follows:

OLD.

- 231 Red-breasted Snipe.
- 234 Red-breasted Sandpiper.
- 648 Blue Yellow-backed Warbler.

A. O. U. NEW.

- 231 Dowitcher.
- 234 Knot.
- 648 Parula Warbler.

Ornithologically yours,

J. C. C.

WILLING TO FALL INTO LINE.

Editors of O. & O.:

In your editorial column this month you ask for a vote in reference to the change in a few of the names of our common birds. I consider the A. O. U. check list the standard for our American birds, and if such ornithologists as Allen, Brewster, Coues, Merriam and Ridgway thought it necessary to change from the old to the new I, for one, think they are the best qualified to know; and it will be a very easy matter for us to conform to the new nomenclature. I, for one, shall vote for the A. O. U. names.

W. H. L.

DOESN'T DENY BUT THE NEW NAMES ARE
"DULCET."

Editor of O. & O.:

In accordance with your request in the April O. & O. that subscribers should send in a vote relating to their preference of English names of certain birds mentioned by yourself in that number I write to say that I am most decidedly in favor of the old titles, for besides being personally in favor of them, I think that they are the least local of any English names applied to these birds.

The reason why I consider the old names more generally known is that they are those

used by the older ornithologists who wrote of our American birds, and in that way they became broadly known, if not "standard."

All of these birds, the Snow Bunting, Grass Finch, Black-throated Bunting, and Yellow-winged Sparrow are abundant only in a comparatively small area, and it is only where a bird is very well known that it receives a local name, and it is hardly fair that such a name should be forced upon people who do not know the bird well, and therefore are not familiar with the signification of the term.

When I saw the first list of English names of birds, which was arranged after the new "A. O. U." code and check-list, I was totally unable to imagine what a "Dickeissel" and a "Grasshopper Sparrow" were.

Some of the new names are more poetic and appeal to the finer instincts with greater force than do the old ones, and I am very fond of poetry, music, etc., but I *don't* want it in the wrong place, and one of those places is in ornithology.

H. G. W.

GIVES A GOOD REASON.

Editor of O. & O.:

My vote is in favor of the new A. O. U. names. Think they are generally shorter, and that is quite a point in their favor. Am well pleased with the O. & O..

F. L. H.

New Hamburg, Pa., May 1, 1890.

DIVIDES HIS VOTES.

Editor of O. & O.:

In regard to the old and new names applied to the birds published in the late number of the O. & O., of which you wish the opinion of the readers of your journal, I would say that I am perfectly satisfied with the new names, but prefer using the old names of 534 and 604.

B. H. D.

CONGRATULATIONS TO THE FIRST UNITED FAMILY VOTE.

Editor of O. & O.:

I would say in regard to the changing of some names of the birds that my wife and myself prefer the old names. We are very much interested in ornithology. "Snowflake" is the name of a potato, and it is not a very good potato either.

Mr. and Mrs. A. E. K.

FAVORS THE OLD EXCEPT "VESPER."

Editor of O. & O.:

Seeing the question in the April O. & O. regarding the new and old names of certain species I will give my idea as to which is the

more appropriate name. I would say that, on the whole, I like the old names much better. Grasshopper Sparrow and Dickeissel are poor substitutes for Yellow-winged Sparrow and Black-throated Bunting; Snowflake for Snow Bunting is fantastic, but a little too much so, I think. Pine Siskin also I do not like as well as Pine Linnet. But as to the other change which you mention, that of Vesper Sparrow for Bay-winged Sparrow, I must say I am in favor of, for I think it a most appropriate name, and we have birds enough named for the color of their wings.

A. H. H.

HIS VOTE TIES THAT OF J. C. C.'S.

Editor of O. & O.:

The April O. & O. to hand, and your reference to the A. O. U. and the *common names* noted. As an amateur ornithologist and oölogist I would say that I am greatly in favor of the new names for several reasons. First, because they are shorter, and secondly I think them more appropriate, that is as a general rule, in the new code. In the four mentioned birds No. 1 is very little changed and the change was really not necessary; No. 2, I think you could not better the name as it is now; No. 3, I have not much to say concerning it as I do not know it; and No. 4, the name is shorter but I do not know where the new name comes from. I think there are other birds that could have been given that the comparison could have been brought out better. As a whole I think the verdict will be in favor of the new names.

F. L. F.

PUTS IN A SOLID VOTE.

Editor of O. & O.:

Having noticed in the April number of the O. & O. a desire for a popular vote upon the re-naming of some of our feathered friends, I for one say, stand by the old names every time, names which are more descriptive and appropriate than the new ones. Black-throated Bunting is by far a better name for our friend than the outlandish name of Dickeissel, better call it Richard Cissel and do away with nicknames. Why change a name for a new one that is no improvement, much less for one that is much worse? Give me the old ones every time, also Ridgway's nomenclature for me, if you please. Why all these changes by the A. O. U.? Is not the old good enough for the Union, or must they stir things upside down to let folks know there is such a Union?

Excuse the length of this, but I could not express myself with fewer words.

S. R. I.

THE
ORNITHOLOGIST^{AND}OÖLOGIST

A Monthly Magazine of

NATURAL HISTORY,

ESPECIALLY DEVOTED TO THE STUDY OF

BIRDS,

THEIR NESTS AND EGGS,

and to the

INTERESTS OF NATURALISTS.

Under the Editorial Management of

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Philadelphia, Pa.

FRANK A. BATES,

Boston, Mass.

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Editorial.

Our Premium.

Any *subscriber* of the O. & O. who will send us a new subscriber with the subscription price of one dollar and ten cents extra to pay postage, we will send them either birds' eggs, stuffed birds, or birds' skins to the amount of one dollar, by F. B. Webster's regular catalogue price, or if you prefer, supplies to the amount of 50 cents. *Such subscriptions must begin with the current number.* This does not mean renewals by old subscribers. Now boys is your chance.

Send in Your Vote.

The lively interest taken by our readers in the change of the common names of some of our birds is just what we anticipated. We shall devote a portion of our space to communications on the subject. In doing so we wish to hear from both sides *and from all*. Ornithologists like others have opinions of their own, and we think what they want is a *free* medium in which to express it. The O. & O. is the place for such expressions and when they get to us there is no committee of suppression.

Off with the Duty.

Your interests as ornithologists demand that there be no duty on birds' skins, birds' eggs or specimens of natural history, nor on any

goods that you require to carry on your study. The McKinley bill, now under the consideration of Congress, does not favor your interests. You have votes, and although small in number let them count in favor of your interests when you are called upon to cast them.

Facts.

Duty on goods that you are constantly using is *not paid by foreigners*, but is a tax on yourself, and designed to keep the price up on what you use. If you like to dance to that music then go for high protection. We prefer to get all we can for our money.

Brief Notes.

Looking over the pages of the subscription book, Vol. VI, the year in which this magazine was changed from the Oologist, we find that there are only thirty-seven names on our present list that were subscribers at that time. They are:

*J. A. Allen,	J. M. W.
Egbert Bagg,	J. W. Lord,
William Brewster,	Geo. N. Lawrence,
C. F. Batchelder,	*F. H. Lattin,
M. T. Bogart,	W. H. Lewis,
C. B. Cory,	Edgar A. Means,
A. P. Chadbourne,	C. F. Neff,
M. Chamberlain,	Austin F. Park,
J. N. Clark,	F. T. Pember,
William Dutcher,	H. A. Purdie,
*Oliver Davie,	John H. Sage,
Ruthven Dean,	C. W. Strumberg,
N. A. Eddy,	J. Y. Stanton,
B. W. Evermann,	W. S. Semple,
W. O. Emerson,	J. Trombley,
B. F. Goss,	†F. B. Webster,
Delos Hatch,	*Jos. M. Wade,
C. M. Jones.	

* Exchange List.

† Publisher.

Over a hundred new subscribers were added to the list the first of this year. The great trouble that we have to encounter is the fact that the life of ornithological interest is short, we think as a rule not exceeding three or four years.

On Sunday morning, May 4, I met H. G. Collins, printer, with an injured Woodcock which he had just picked up on Devonshire street, Boston. It was quite lively but injured in the head. It had evidently flown against one of the many electric wires which cover the city overhead. Jos. M. Wade.

While on a collecting trip in the vicinity of Beverly, Mass., April 19, I shot a fine ♂ specimen of the Pigeon Hawk. If this is a rare bird to this locality, please publish it. Frank A. Brown. [We do not consider it rare.—Ed.]

On the 28th of April I took a set of five Albino Bluebird's eggs from a nest in a dead stump about eight feet up. All the eggs were perfectly fresh when blown. Fred W. Pashley, Forest, Ont.

Lewando's Dye House, Boston, have exhibited in their window a stuffed cat in the act of washing a brood of chickens, part of which are hung out on a line

to dry. The piece, of which there are several duplicates, was designed and executed by F. B. Webster. The company have adopted it for a trade mark, and we are informed that they propose to use a lithograph of it for a calendar.

Harry Gordon White is to have a six weeks' furlough which he will spend at the Magdalen Islands. He expects to have a fine opportunity to collect in that locality.

Walter Hoxie has returned from a collecting trip. We have just received an article on Seminole names which will be given to our readers in a future issue.

W. Otto Emerson writes that he was to leave Hayward's, Cal., on the 14th, for Paris, France, where he will study art at the Academy of Julian, for two years. He will be obliged to give up his ornithological exchanging during the time. We anticipate a call from him while on his way.

During the first week of May reports came in from all quarters of the arrival of spring birds. W. P. Hadley, Arlington, Mass., reported, the first of the week, Yellow, Parula, Prairie, Chestnut-sided, Black-throated Green, Nashville and Black and White Warblers, Oven-bird, Solitary Vireo, and Wood Thrush. We received the first Tanager on the 6th.

March 28, Woodcock seen at Dartmouth, Nova Scotia. Big Duck shooting at Three-Fathom Harbor. April 13, Barn Swallows, Robins, Juncos, Song Sparrows, Blue Jays, Hudsonian Tits, Rusty Grackle and flocks of Fox Sparrows, seen. Harry Austen, Halifax.

A list of members of the Colorado Biological Association has been received. After June 1 the address of the secretary, T. D. A. Cockerell will be, 5 Prior Road, Bedford Park Chiswick, London, England.

C. F. Newell sends in two large photos, one of Deers' heads, and the other of the entire animal. We have before referred to that gentleman as being one of Maine's young taxidermists of promise.

And now comes a very nicely executed photo of a group of Hawks taken by flash light at night by Henry Norris, son of J. Parker Norris, Esq.

Harry Austen has a bear cub. It is a tame little fellow; sleeps in the room with him and is a family pet. He offers it for sale. Anyone wanting such a pet has a rare opportunity.

F. B. Webster recently purchased about 30,000 feet of land at the Hazelwood station, Hyde Park, Mass., on which to erect buildings suitable to carry on the Natural History business. The museum building will be commenced at once. It is located on the Old Colony railroad, Providence division, seven miles out from Boston. Salesroom will be at the old stand, 409 Washington street, Boston.

We are receiving a number of letters from our subscribers asking about Oliver Davies' new work on taxidermy. We assure you all that we consider that it will be a book that will repay you well if you invest in it. The publisher of the O. & O. subscribed for ten copies personally. The subscription price is \$5. Blanks will be furnished upon application. \$1 must accompany order as a matter of good faith. The work will not be published except upon receiving 500 subscribers. The name of each subscriber will be published in it, and the number limited. Give Mr. Davie a good endorsement.

An exchange gives an account of a party who advertised for birds' eggs in a Nevada paper, and the next

day a notice was published in the paper calling attention to the adv. and threatening anyone who disturbed nests. It's one thing to threaten, but a horse of another color to execute. We have a threatening angel in this state, but our ornithologists don't appear to worry much.

John C. Cahoon started for a four months' trip to Newfoundland early in May. He was well muzzled by a contract not to collect any specimens for himself, give any notes to the public, nor to go there again for three years. We are not sure whether he was required to leave his soul as security. And still they kick up at the lack of liberty in Russia, but money will compete with the Czar every time.

William Brewster has added the Boston Turkey Buzzard to his collection. When that gentleman sees a good thing he appreciates it. Turkey Buzzards, and in fact anything from Boston, are not to be sneezed at.

We now have a den of black snakes at our office, five crawling, wriggling, cold-blooded chaps. Noting the wish on the part of the people to exterminate the English Sparrow, we placed one of them in the cage to see if the proposition of the fish commissioners to use them for food would be approved by our pets. About that time Mrs. Maynard, the wife of one of our best known naturalists called and pleaded for the life of the bird. We could not resist and presented it to her. No use, the best friends of our birds are our ornithologists.

RALEIGH, N.C., April 11, 1890.—O. & O. duly received—is more beautiful than ever this year. I like the idea of putting one's 'speriences in Brief Notes, so will give our luck this season.

Pine Warbler started building, March 4, twenty-three days earlier than last two years, but the sudden and violent changes in weather completely demoralized them, and eggs are not panning out as well as the number of nests found.

Took three young Woodcock in down, March 19, and two sets of Brown-headed Nuthatch, March 24.

Have found two nests (now about half finished) of Yellow-throated Warbler (*Dendroica dominica*) and am glad to see a pair of Broad-winged Hawks summoning up courage to fix up their last year's nest.

Will somebody please solve this, it's been pitched into me several times: Two snakes met, No. 1 seized the other by the tail, No. 2 reciprocated, and each started to swallow the other. What was the result?

Correspondence.

More Facts on the Shrike Question.

Editors of O. & O.:

Have taken four Great Northern Shrikes this past winter. The stomach of one contained a small grasshopper in addition to a good sized "wad" of hair and bones. The stomachs of the other three contained the "wad" of hair and bones, but no insects. On March 24, 1890, (the last shrike of the winter), I observed a shrike take a small *snake* about twelve to eighteen inches long; I chased him from tree to tree, but could not get a shot at him. At last he dropped the snake and I took it. The head of snake was gone and a fair part of

body also. Ten inches of the tail part remained. All these facts are noted in a winter exceptionally mild, notably so in this section.

C. C. Maxfield.

Editors of O. & O.:

In my notes on "A Kite New to American Fauna" in your April number, the locality should read Monroe Co. instead of Dade. It was my mistake in copying the MSS.

J. C. Cahoon.

Editors of O. & O.:

On April 2, a fine specimen of Golden Eagle measuring seven (7) feet in extent was brought me to be mounted. It was poisoned in Altona Township, Pipestone Co., Minn., by a boy who had a bait out for prairie wolves. It is the first specimen ever taken in this county to my knowledge. I think it is a rare bird in a treeless country like this.

A. D. Brown.

Pipestone, Minn., April 5, 1890.

An Unusually Large Eagle.

Editors of O. & O.:

Your letter was over two weeks in reaching me after it was written, and I am very sorry to tell you that during one of our wind storms the door of the house in which my eagle lived blew open and he came out. Before we knew it, he had attacked a physician, lighting upon his arm and showing so much fight that the doctor killed him with a club and left him lying where he fell. As he did not inform us we did not know of it until the dogs had destroyed the bird, so I cannot give you a sworn statement of his extent. I can only say that the room in which he lived was nine feet, three inches wide straight across, and he could not quite straighten himself except corner-wise of the room. We think he measured nine and one half feet surely. He was quite tame with us but was very ugly to the doctor. Thanking you for your interest in my big bird, I remain sincerely yours,

F. E. Carr.

Lewistown, Fergus Co., Mont., Apr. 28, 1890.

Editor O. & O.:

Here we are all O. K. and right side up. Friday morning I took a small boat on the Dartmouth side, and with a chap to do the rowing started out in quest of the Auk family and other members of the feathered tribe. On our way down the harbor I spied a boat ahead of us with two chaps in, who would pull like blazes for about fifty yards, drop their

oars, jump up, slap their guns to shoulder, and sweep the waters in all directions; this they kept up until we caught up, and going ahead we kept eyes open, as we knew by their actions something was on the move. Sure enough, for in a few moments my eagle eye lit on a black object that was going for all it was worth for the shore. We shot our boat in that direction, when the object disappeared beneath the water, and appeared again, going behind us, at about fifty yards distant. I slung up my ten bore, there was a stunning report, and a charge of No. 4 shot swept that animal into eternity. Upon rowing up I was much surprised to find it an American Scoter, with hump bill, orange and yellow, and plumage all black. I was glad to get it, and it's the first specimen of its kind I have ever shot so near home, and it is now mounted and helps to swell my already very large and varied collection. After gathering this chap in, we proceed on our way, and meet with nothing further except Guillemots, that would get up far out of shot, until we got well down past McNab's Island, when we spotted four loons hugging the opposite shore. We immediately turned the boat and lit out. When we arrived upon the scene the Loons had deserted, all but one, and he seemed to feel perfectly secure, so we edged in our boat, drove him close to the shore, when he dove. I then stood up, backed out the boat about sixty yards and waited. All of a sudden up came the Loon behind us, but I was there as quick as he was, and a charge of No. 2, with five drams of powder behind it, laid him out cold, so we gathered him in, and after plugging him up with wool turned again towards the Island. By and by we caught sight of some Cock-a-wee, got pretty well up to them, when up they jumped. One chap took a sweep around us, and in turning to join the others, came rather too close, and again the ten bore spoke, and there was one Cock-a-wee less in this beautiful world. We picked him up and he proved to be a very fine male in the winter plumage. We then made for the lower part of the island and got to our destination, all O. K., without any further interruptions from the songsters of the deep. There are just here two narrow strips of land running out into the bay, and the water comes in from the sea through a passage about 150 yards wide. Here we anchored the boat about mid-channel, and with guns in hand waited for the birds to show up. By and by, in comes a Cock-a-wee, and with the wind after him he cuts through the air at 1,000 miles a minute,

(more or less), off go two guns and off go the Cock-a-wees, large as life and twice as natural, and happy as a clam at high water. A few remarks dropped by my companion and self about not being prepared, shot too far behind, thought you would shoot first, etc., is all the consolation that is left us.

In a little while we spy a large bird winding his way up from the sea, and coming along with neck outstretched and wings going "two forty," as though he were afraid to let up for an instant, for fear he would drop. We say "Loon, lay low," and low we lay, and with anxious eye we follow the line of flight. Now he comes up, is right over the boat, when up go the guns, and Mr. Loon makes a mighty good attempt to spring through the air, but he is too late, for with two reports ringing out on the air his spring and flight in this world is over and down he comes, head over heels, and hits the water with a mighty thud which sends the gentle liquid splashing high up into the air. We gather him in, plug him up with wool, wrap in paper, and lay carefully in a box that I had brought with me for that purpose. After spending an hour or so and getting in an occasional shot, we decide that it is not good enough, and as the wind had risen and was very cold, calculated it would be more comfortable ashore, so turning our boat we made for the landing. On the way in we spotted two more Loons close to the shore and pulled quietly toward them, after getting within about 100 yards they dived toward us, and we knew that it was their intention to get outside of us, therefore we did not move but stood up in the boat, with guns ready. In a little while there was a splash and a plunge right within shot, but he was too quick for us, another second up comes the other, and this time my eye happened to catch him as he broke water and before he could dive, a charge of No. 4 shot took him in head and neck, and there he laid without a quiver, stone dead. We laid him to rest with the other and then making for the landing pulled up our boat, backed our traps, and made for my friend Bashford's, who gave us a hearty welcome as it was three years since I had the pleasure of spending an evening with him and his good wife before. We spent the rest of the day wandering about the shores but secured no birds.

After tea, about six o'clock, I took my gun and went for a place where I had shot six Blue-wing Duck out of eight in one shot three years before, as I felt sure if any were about they

would show up there, as it was a favorite drinking place for the Blue-wing in the times gone by. I kept well under cover, and just as I got to the brook I spotted a Blue-wing making for the woods (he had been in the brook drinking, and I had got between him and the sea), so up went the gun and down came the duck. I went and picked him up and on turning around to get back to cover, there were the Blue-wings coming in and alighting in the brook, and just off the mouth; and there was I out of shot and no way to get at them, so I simply walked toward them and off they went, between fifty and sixty of them quacking like blazes. I laid down behind a rock, as I knew they would circle back, and back they came, but out of shot, and passed overhead on to some other drinking ground. I waited for a little while, and two more coming I got in a shot, saw one tumble, marked the spot and got him the next morning.

In the morning my companion was up at four o'clock, and went back to the brook, expecting the Shell fowl would come in to drink at daylight, but none turning up he followed up the shore and secured another Loon and two Widgeons. I turned out about nine, and as it was blowing a living gale we could not get out in the boat so shot around the shores, but only got one Gray Gull and a R. B. Merganser. In the afternoon, about three, we left for home, and a hard time we had as the wind was right down from the north, dead against us, and it was hard pulling. We did not strike the Dartmouth shore until after six o'clock, and I was very glad to step on the land. We saw none of Little Auks, or Murres, and I was very much disappointed as I had thought to have secured a good many specimens for you, but it's too late now in the season and I fancy they have all passed on or gone out to sea?

Speaking about Loons, are those we got the young of the Northern Diver? If so, how is it that we get none in full plumage in the winter time, and how is it that in summer time we get none but the old birds, and then always in the fresh water lakes and in full plumage, and never see either old or young at that time of year in the salt water? Do you think that they are one and the same bird? I have stuffed a pair of them, the third one my man took to eat. As he says, they lay over the baked goose, but I don't hanker after them put up in that way, as goose is good enough for

Yours truly,

Austen.

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P Birds

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Notes on the Birds of Tioga Co., N.Y.

Although I do not profess that this list is entirely correct, yet it is based on what I find in my note books. The numbers correspond to those in Ridgway's nomenclature.

1. Wood Thrush. Common. Found in the woods and underbrush. Perched on some tree or bush the male pours forth his beautiful notes which make the woods ring. The nest of this species is placed in a small bush or on the ground, and is composed of dried grass and pine needles loosely put together, but quite bulky. The eggs, four in number, are of a light blue color and usually measure 7-8 in. by 5-8 in.

7. Robin. Common. Arrives here on its northern migration about the 14th of March. During the first week in May nest building commences, but I once found an industrious Robin who had her nest half built on the 5th of April. This is placed in an old shed, or in the crotch of a tree, and is composed outwardly of dried grass, weeds, mud, and is lined with dried grass. The eggs, usually four in number, are of a light blue color. During this season the male Robins can be seen, as night approaches, fighting with one another, and calling to each other from housetop to house-top. Their food consists of worms, bugs and, during the fruit season, cherries and strawberries. At this time they are of great annoyance to the farmers who put out fright tins, which fail to drive them away. About the last week in October they gather in large flocks and feed on wild cherries and mountain ash berries until the time of departure, which is less than a week.

12. Catbird. Common. I find the favorite resorts of this bird to be along the river banks and small creeks. Their food consists of bugs and strawberries. The nest is placed in a bush or small tree, is composed of small twigs and is lined with hair and sometimes leaves. It is

deeply hollowed and is quite compact. The eggs, usually four in number, are of a dark green color and measure as follows: 7-8 in. by 11-16 in. As the last of September draws near, the Catbird departs for its southern home, not in flocks, however, but in pairs or singly.

13. Brown Thrasher. This beautiful songster is quite a common resident, desiring thick brush for its nesting place. I have not had much opportunity to observe these birds in their haunts, and therefore cannot give much of a description of them.

22. Bluebird. This beautiful little bird is one of the earliest to arrive, making its appearance about the middle of March, and sometimes earlier. Immediately after mating, nest building commences; this is placed in a natural cavity of a tree or deserted Woodpecker's nest; it is very loosely constructed of dried grass, and is quite shallow. The eggs, four to five in number, are of a light blue color, and I believe instances have been known of their being found pure white. One set which came under my observation was found in a telegraph pole and were all nearly white and sound and the measurement of one of them is 3-4 in. by 5-8 in. Two broods are often reared in one season. As soon as the young can shift for themselves they take to the fields with their parents to search for small bugs and worms. As the last of October draws near both parents and young leave for the south.

41. Chickadee. Common. Found in the thick woods and groves; their food consists of insects and flies. They also like the society of other birds such as Nuthatches and Kinglets. This little bird is one of the few who do not migrate, and seems as happy on the coldest day in winter as in midsummer.

51. White-bellied Nuthatch. Common. Stays with us the entire year and lives on bugs, caterpillars and worms.

55. Brown Creeper. Common. This is another one of our winter visitors. This bird

did not come under my observation until 1887 when I shot the first one I ever saw, and the summer of 1887 when I had the good luck to find a nest. When first found it was not completed. It was placed under a piece of bark which was on a tall dead tree and was about ten feet from the ground. I watched the birds as they built it. The male was quite diligent, and I noticed that when he came out before her he would *creep* up the tree four or five feet and then *fly* down (never crept) to the nest, and if she did not make her appearance for some time he would look in and they would have a little chat together. After awhile they would both come out and fly away. In a few minutes both would return and repeat the performance. After this I again visited the nest to find in it three fresh eggs; these I carefully packed in a small tin box, but in trying to get to a Sparrow Hawk's nest I lost the box. The nest was composed of the fine inner bark of trees and was very shallow.

63. House Wren. Common. Builds in Martin boxes and natural cavities of trees. The eggs, six to eight in number, usually six, are of a pale reddish flesh color, covered with fine dots and sprinklings of a darker color. The measurement of the egg is 5-8 in. by 15-32 in. Occasionally two broods are reared in one season. The nest is composed of sticks, horse hair and feathers, is very bulky and neatly constructed; the hollow is quite deep. This pugnacious little bird is a very industrious nest builder, carrying sticks three to four inches in length.

115. Golden-crowned Thrush. Not common. Seems to desire the dense woods and underbrush.

135. Red-eyed Vireo. Common. This little songster does not inhabit any particular locality. It is a great benefit to the farmer in the way of insect destroying, and is constantly busy in this useful employment. The nest is hung from a crotch at the end of a branch and is composed outwardly of the inner bark of trees, paper, cobwebs, etc. It is lined with pine needles and is deeply hollowed. The eggs, four to five in number, are of a pure white, with a rosy tinge, and sprinkled with brown, mostly at the largest end.

148. Great Northern Shrike or Butcher Bird. Common, but only as a winter visitor. Their food at this time consists of Sparrows and other small birds. I once shot one which had caught a Sparrow and had its head nearly eaten off.

151. Cedar Waxwing. Common. This bird is very useful in one way and quite destructive in another; useful, because up to the first of July their food consists of flies and insects; perched on the top of a tree they quietly wait for their prey to pass, when they dart out and often catch three or four flies before returning; destructive, because when cherries get ripe their food consists principally of them. The Cedar Bird arrives from the south in flocks about the middle of March. Near the middle of May, immediately after mating, the nest is built. This is placed on a horizontal limb from twenty to thirty feet from the ground, and is composed of dried grass and weeds, and is lined with fine roots, pine needles, etc. It is deeply hollowed, and contains four to five eggs of a light bluish color with a slight purple tinge, marked more or less with blotches and spots of black and more obscure lines of purplish-brown. The measurement is 7-8 in. by 19-30 in. About the first of September these birds gather in flocks of fifty to seventy-five individuals. At this time they live on the berries of the mountain ash. As the last of this month expires they leave for the south.

152. Purple Martin. Rare.

153. Cliff Swallow. Rare.

154. Barn Swallow. Common; breeds. The nest is placed under the eaves of a barn. It is composed of mud and is lined with feathers or fine straw, and contains four eggs, sometimes five. They are of a creamy white color spotted with two shades of brown, mostly at the larger end. The measurement is usually .76 by .56. Two broods are sometimes reared in one season.

155. White-bellied Swallow. Common. Breeds. Builds its nest in stone walls and Martin boxes. The eggs are pure white in color and measure 3-4 in. by 17-32 in.

157. Bank Swallow. Common. Excavates a hole in a sand bank after the manner of the Kingfisher, and builds its nest at the end of it. Its food consists of insects, of which it destroys great numbers.

161. Scarlet Tanager. Has been quite rare up to the year of 1888, when I found them to be quite common in the woods. Although I have searched many times for their nest I have not been able to find one. The song of this bird is much like that of the Robin, only not as loud. Perched on the top of a tall tree, the male will sing for some time, and then dart off on its useful mission of destroying insects.

168. Purple Finch or Linnet. Common in the spring and fall but does not breed.

181. American Goldfinch or Thistlebird. Common. Seems to desire the companionship of man rather than the country, although it is occasionally found there. These birds make their arrival from the south about the last of March, and do not commence building until June. The nest is placed in a maple tree or willow bush, and is composed of thistledown and horse hair. It is deeply hollowed; the measurement of nest is 1 1-4 in. in width by 1 3-4 in. in depth. The nest is also very neat and compact. The eggs, usually four in number, are of a beautiful bluish-white color, and measure 32-48 in. by 1-2 in. As the middle of October draws near these birds congregate in immense flocks (at this time they live on seeds) and depart for the south.

211. Chipping Sparrow. Common. Arrives from the south March 22d, or later, in small detached flocks. About the middle of May or a little later these birds begin nest building. This is placed in a crotch at the end of a limb of an apple tree, or in a small pine or evergreen. It is deeply hollowed and is very frail, often blowing down and spilling its contents. It is composed mostly of small grass and horse hair and is lined with horse hair. The eggs, usually four in number, sometimes three, are of a light green color spotted and scrawled with black and obscure brown. The measurement of the egg is usually 14-16 in. by 1-2 in. Two broods are usually reared in one season. This little bird is one of the many victims of the Cow Bunting or Cowbird. As winter approaches some of these birds go south, but the majority of them stay with us the entire winter. At this time their food consists of seeds which they find on the snow and pick off the woods.

231. Song Sparrow. Common. Breeds. This little songster is one of the earliest to arrive and latest to depart. It arrives about the last of March. The nest is placed in a small bush or on the ground. It is composed of dried grass and is lined with horse hair. The eggs, four to five in number, are of a bluish-white color spotted and blotched with reddish-brown, thickest at the larger end. This bird leaves for the south about the last of October.

E. S. English Sparrow. Don't mention him.

237. Chewink. Common. Found in the thick brush and margins of the woods.

235. Fox-colored Sparrow. Quite rare, found in the brush lots.

242. Cardinal Grosbeak. Rare. I have only seen one of these birds. They seldom come so far north as this.

244. Rose-breasted Grosbeak. Rare. But two of these birds have come under my observation; those I shot and mounted.

248. Indigo Bunting. Common in the summer. Found along the country road.

275. Bobolink. Common. Stays here just long enough to breed.

258. Cow Bunting or Cowbird. This lazy little tyrant is very common, making its arrival from the south about the middle of March. Too lazy to build itself a nest the female deposits her eggs in the nests of other birds, the principal victims of which are the Bluebird, Yellow Bird, Yellow Warbler and Chipping Sparrow. I have found as many as three eggs in one nest. As soon as the egg or eggs are hatched the ground bird wriggles and twists till it throws the other birds out. I remember once seeing a little Yellow Warbler feeding a Cowbird which was full grown. The measurement of their eggs is about 7-8 in. by 5-8 in. As the last of October draws near the young and old birds assemble in large flocks and leave for the south.

261. Swamp Blackbird. Common. This bird is one of the earliest to arrive on its northern migration, making its appearance about the middle of March. It arrives in large flocks, the males preceding the females a week or more. The nest is built in a small bush or hung from two or three cattail stalks. It is composed of dried grass and weeds, and is lined with fine roots. It is deeply hollowed. The eggs, usually four in number, are of a light blue color, blotched and scrawled with dark brown and obscure spots of black. The measurements of a set of four are 1 in. by 11-18 in., 35-36 in. by 23-36 in., 35-36 in. by 22-36 in., and 1 in. by 23-36 in. These birds love the society of each other and breed in communities. I have found as many as twelve nests in a space of less than half an acre. Two broods are often reared in a season.

263. Meadow Lark. Common. Breeds. Arrives here from the south about the first week in April. The flight is regular with short intervals of soaring. The nest is placed on the ground under a tussock of grass, and has a canopy built over it, leaving just room enough to enter. The eggs are four in number. Mr. Samuels says, "Their color is generally nearly pure white, sometimes reddish-white with fine spots of reddish-brown diffused over the entire surface of some

specimens, in others thinly scattered spots and blotches of two or three shades of brown and lilac." One brood only is reared in one season. The stomach of one of these birds which I opened contained a great quantity of small bugs.

271. Baltimore Oriole. Common. Breeds. Is a late arrival, making its appearance about the sixth of May, sometimes later. This beautiful bird seems to desire the society of mankind, and its nest may be found swinging high above his head in the maple, elm and willow trees. It is a very ingenious bird, and takes great care in constructing its nest, which is composed of strings and rags, and is lined with horse hair. The eggs, four to five in number, are of a bluish tinge blotched and scrawled with lavender and different shades of brown. This bird departs about August 30th.

278. Purple Grackle or Crow Blackbird. Common. Arrives in large flocks about the middle of March. About the last of April nest building commences. This is placed in a pine or evergreen tree. It is rudely composed of dried grass, strings and rags, and is lined with fine roots. The dimensions of the nest are 3 3-4 in. wide and 3 3-4 deep. The eggs, usually four or five in number, are of a light blue color spotted and scrawled with dark brown and obscure lines and spots of different shades of brown. As the first week in October draws near these birds congregate in immense flocks and leave for the south, sometimes in in company with Redwing Blackbirds.

282. Common Crow. Common. Some of them stay with us the entire year but the majority migrate. They inhabit the dense woods and build about the first of May. The nest is placed on a horizontal limb, but generally in the crotch of a pine or spruce tree. I have found them as near the ground as fifteen or twenty feet. The eggs are usually four in number; their color is a light green covered with blotches and spots of different shades of brown. They vary greatly in size; a set of four in my collection measure 1 5-8 in. by 1 1-8 in., 1 3-4 in. by 1 1-8 in., 1 3-4 in. by 1 1-8 in., 1 5-8 in. by 1 1-8 in. The food of these birds consists of larvæ, small young birds and eggs. During the winter the pangs of hunger press them to the outskirts of the towns and villages.

289. Blue Jay. Common. They are found in the wooded districts. Their flight is regular and they stay with us the entire winter, living on acorns which they have stored away for winter use.

304. Kingbird or Bee Martin. Common. Breeds. The food of this bird consists of insects and great numbers of bees. The nest is usually built near some telegraph or telephone line where the birds sit and watch for their prey. It is composed of wool, weeds and small roots, and is lined with small roots. The eggs, usually four in number, are yellowish-white with a rosy tinge, and are spotted and blotched with light brown. This bird arrives from the south about the first week in May, and departs about the last of September. They are very pugnacious and soon drive away any hawk or Crow that comes near.

312. Great-crested Flycatcher. Common. Found in the wooded districts.

315. Phœbe. Common. Arrives in pairs or singly about the first of April and lives on bugs and insects. About the third week in April nest building commences. The nest is very compact and deeply hollowed, being placed under the eaves of a barn or house, in a shed, under bridges or culverts, etc. It is composed of moss and mud, being lined with horse hair, small, dried grass and other soft materials. The eggs are usually four in number, and are of a pure white color, some of them being spotted with light brown, mostly at the larger end. The eggs commonly measure 3-4 in. by 4-16 in.

320. Wood Pewee. Common. Found both in the dense woods and around the shade tree in the villages. The nest is placed on a dead, horizontal limb, and is composed of stringy lichens and fine grasses, wound on with cobwebs. It is lined with stringy lichens. Mr. Samuels, in his *Birds of New England and Adjacent States* says, "The eggs are generally four in number. They are very beautiful, being of a delicate cream color with blotches and spots of lilac and brown around the larger end. There are two shades of brown, one obscure, the other decided, even a lavender. The eggs are generally oval in shape and but little larger at one end than at the other. Length from .72 to .78 in., breadth from .54 to .56 in. But one brood is reared in the season in New England. The period of incubation is fourteen days."

335. Ruby-throated Hummer. Common. Found around the marshy and swampy places. One nest which I found was placed on a horizontal limb of a small maple in the woods. It is composed of downy substances and is covered with bits of lichens wound on with cobwebs. It is deeply hollowed. The measurement of the nest is 7-8 in. wide, 5-8 in.

deep. The eggs are two in number. The measurement of one in my collection is 1-2 in. by 5-16 in. The weight of a Ruby-throat's body after it is skinned is 25 grains.

351. Chimney Swift. Common. Breeds. Arrives here from the south in flocks. They are a peculiar bird and light only in chimneys. The manner of getting materials for building is as follows: They fly along until they get to a tree with a dead top, when they grab a twig and wrench and twist until they break it off. This is conveyed to some chimney that is not used, and is glued to the bricks with a glutinized substance which they make. The eggs, usually four in number, are of a pure white color, and usually measure 25-36 in. by 1-2 in.

354. Whip-poor-will. Not rare.

357. Night Hawk. Common. Their food consists of small bugs.

360. Hairy Woodpecker. Common. Stays with us the entire winter, and lives on larvæ.

361. Downy Woodpecker. Common. Breeds. Does not migrate, nests in a hole which it excavates in a dead tree.

371. Pileated Woodpecker. Very rare, but two of these birds having come under my observations. These were shot by farmers.

375. Red-headed Woodpecker. Not common. Breeds. Excavates a hole in a decayed tree and lays its five glossy, white eggs on the chips it has made. The measurements of a set of five eggs now before me are 1 in. by 23-36 in., 1 in. by 11-42 in., 1 in. by 23-36 in., 1 in. by 23-36 in., 1 1-6 in. by 3-4 in.

378. Yellow-shafted Flicker. Common. Arrives here about the fifteenth of March. Its nest is built after the manner of the other Woodpeckers in a dead tree. About the last of May the female commences laying. The usual number of eggs are seven. They are of a clear, glossy, white color. A set of seven in my collection measures 1 1-8 in. by 7-8 in., 1 1-8 in. by 7-8 in., 1 5-36 in. by 7-8 in., 1 1-8 in. by 7-8 in., 1 1-8 in. by 7-8 in., 1 1-8 in. by 7-8 in. The food of these birds consists of larvæ. As the middle of October draws near these birds get ready to depart. At this time they may be found in the fields and orchards living on bugs and wild cherries. About the middle of October they leave for the south.

382. Belted Kingfisher. Common. Arrives on its northern migration about the second week in April and departs about the last of October. The nest is placed in a sand bank at the end of an excavation which is often five

feet in length. The eggs are usually seven in number, and are pure white in color with a rosy tinge. The measurement of a set of seven is: 1 3-8 in. by 1 1-36 in., 1 3-8 in. by 1 1-36 in., 1 3-8 in. by 1 in., 1 11-36 in. by 1 1-16 in., 1 11-36 in. by 1 1-16 in., 1 11-36 in. by 1 1-16 in., 1 11-36 in. by 1 1-16. The food of this bird consists of small frogs and fish which they kill by batting them from side to side on a limb and then swallow them whole.

387. Yellow-billed Cuckoo. Common. Breeds.

388. Black-billed Cuckoo. Rare.

397. Barred Owl. Not common.

405. Great Horned Owl. Not rare. Breeds. This bird likes the dense woods and underbrush. A friend, J. J. Loveless of Smithboro, N. Y., told me that he was coming home from butchering one evening when he noticed one of these owls flying along over the tree-tops of the woods. It would have passed over him but seeing Mr. L. he turned and charged on him. His first thought was to catch the owl if he came again, but remembering the scar on his leg which was caused by one of these birds several years ago he quickly changed his mind and began searching for a club. All this time Mr. Owl kept charging, which made Mr. Loveless hustle to avoid a collision. Finally after making five or six unsuccessful dives the owl went off as if it were a common occurrence to catch a man every day for supper. He supposes the bird smelt the blood on his hands.

402. Little Screech Owl. Common in the winter. Lives on mice and small birds, and a farmer once told me that he caught one in his dove-cot which had killed a dove and eaten its head off.

417. Pigeon Hawk. Not rare. Breeds. Lives on small birds, snakes and field mice.

420. Sparrow Hawk. Quite rare. Breeds. Builds in a natural cavity in a tree. I had the good luck last year to find a nest. It was about twenty feet from the ground and contained five young. I took them for pets. There were three males and two females. The food of this species consists of grasshoppers, small birds and field mice.

425. Osprey or Fish Hawk. One of these birds usually stays around here every summer.

436. Red-tailed Hawk. This bird is the commonest of the Hawks. Its food consists of red squirrels, small birds and great quantities of grasshoppers, occasionally a hen or chicken. Breeds.

439. Red-shouldered Hawk. Rare. Breeds.
 451. Bald Eagle. Not rare. While out hunting ducks last winter I wounded a Whistle-wing, and after chasing him around a while he took to the old device of diving and sticking just the end of his bill out of the water. I soon lost trace of him and went on but happened to look back and saw an eagle trying to catch my duck. I ran back hoping to get a shot, but as soon as the eagle saw me he flew away. I saw three more that year, two of them at one time.

459. Turkey Buzzard. Rare. But one of these has come under my observation; that was shot about five miles south of here.

460. Mourning Dove. Not rare. Breeds.

473. Ruffed Grouse. Common. Breeds. Affords fine sport for hunters. Lives in the woods and underbrush. Builds on the ground and lays nine to twelve eggs. They do not migrate but subsist on bugs during the winter.

480. American Quail. Common. Breeds. Seems to prefer the fields and marshy places for its nest. Lives on grain, etc. Are very fine eating.

487. Great Blue Heron. One or two are usually shot every year. Found along the rivers and creeks; lives on small fish and frogs.

494. Little Green Heron. Common. Found along the river banks and creeks; lives on dragon flies, small fish, etc. Breeds. Builds in trees. The nest is composed entirely of twigs and is lined with a few dried leaves. A set of four taken by me measure 1 1-2 in. by 1 1-8 in., 1 1-2 in. by 1 1-8 in., 1 1-2 in. by 1 3-16 in., 1 5-8 in. by 1 3-16 in. Their color is a sky blue; they are very coarse and rough looking.

497. American Bittern. Very rare. One was brought to me to mount. This is the only one that has been seen in these parts.

516. Killdeer Plover. Rare. But one of these birds has come under my observation.

525. American Woodcock. Common. Breeds. Gives the hunter great pleasure.

526. Wilson's Snipe. Found during the spring migration around the wet and swampy places. Arrives here in small detached flocks.

557. Spotted Sandpiper. Common. Breeds. Lives on small bugs, lamprey eels and worms. Builds on the ground under a stone or tussock of grass. The eggs are a "yellowish-drab color spotted and blotched with umber and sienna." The usual measurement is 1 2-8 in. by 7-8 in.

580. American Coot. One of these birds is seen nearly every spring.

594. Canada Goose. Occasionally stops a day or two on its migration.

602. Black Mallard. Occasionally found in the spring in the ponds and standing pools from overflows.

612. Green-winged Teal. Rare. One was shot here a time ago, only one ever seen around here.

613. Wood Duck. Rare.

614. Big Black Head. Not common. Found in the spring and fall in pairs or small flocks of three to five.

620. Whistle-wing Duck. Common. This duck is one of the most common of the ducks which inhabit this part of the country. It may be found in the spring, fall and winter on our Susquehanna river. It is called Whistle-wing because after attaining the height of about fifteen feet its wings make a whistling sound, which may be heard for fully a quarter of a mile. When slightly wounded this duck dives and sticks just the end of its bill out of water. They are expert swimmers, divers and fliers. Their food consists of small fish and mussels. Out of the crop of a full-grown male I counted sixty-one small shells and three pebbles. The full-grown males are very beautiful, their head being of a glossy green, with a white puffy spot at the root of the bill. Their weight is from two pounds to two pounds and a half. They are fair eating.

621. Butter Ball. This little duck is not rare but may be found in small flocks of three to six. It is very tame until after it has been shot at a number of times. Makes fine eating.

623. Old Wife or South Southerly. Common. Comes up the Susquehanna in the spring and fall in flocks of fifteen to thirty. They are expert swimmers, divers and fliers. Living on small fish. Like numbers of other ducks when wounded it dives and puts just the end of the bill out of water. They are very tame but are not good eating. Out of the crop of one of these birds I took 52 small pike, most of them an inch long, and six or seven two inches long. A full-grown male often weighs two pounds. The favorite days for these ducks are when it is cold and the wind is blowing just after rain.

638. Hooded Merganser. Rare. Seldom seen.

731. Red-throated Grebe. Common. Found in pairs and singly; like the preceding species it dives at the flash of a gun and also lives on fish and they have the habit of eating their own feathers.

732. Eared Grebe or Hell Diver. Common. Does not breed. Found here during the

spring, fall and winter. It is an expert swimmer and diver, but is very awkward on land, and seldom takes to it. Like numbers of other divers it can dodge at the flash of a gun. The food of this species consists of fish and they also eat their own feathers.

760. Great Northern Diver or Loon. Not rare, occasionally seen during the spring and fall; is an expert diver and swimmer.

Alden Loring.

Owego, N.Y.

Summer Birds of Sudbury, Ontario.

Sudbury, Ont., Canada, is a flourishing mining and lumber village, situated at the junction of the main line and the Sault St. Mary branch of the Canadian Pacific railroad, about sixty miles north of Georgian Bay and eighty miles north-west of Algoma. The entire surrounding country is hilly; these hills, despite their rocky nature, being clothed with pine forests, large tracts of which were burned out a few years ago, and thickly interspersed with those quiet little lakes so abundant in western Canada. The region is exceedingly wild and weird, quite uninhabited, except for some mining and lumber camps, which have located there only within the past decade.

During the summer of 1889, the writer had occasion to spend ten weeks at Sudbury, and as a result of almost daily tramps collected the following observations on the avifauna of the district. The list comprises some seventy-eight species, and while of course quite incomplete is as correct as the period of observations would permit. Nearly every bird mentioned in the list undoubtedly breeds at Sudbury; nevertheless, only those actually observed engaged in nidification are so noted.

A.O.U. NO.

6. Pied-billed Grebe. Tolerably common. Shot a well developed young ♂ on August 5th.

7. Common Loon. Common. Breeds. Set of fresh eggs taken July 6th.

51a. American Herring Gull. Occasional.

129. American Merganser. Common. Breeds. The young of this and the next species are well developed by the end of July.

131. Hooded Merganser. Tolerably common. Breeds.

133. Black Duck. Black Mallard. Abundant. Breeds.

144. Wood Duck. Occasional.

151. Golden-eye Duck. Occasional or rare. Breeds. With large, downy young on July 18th.

153. Butter-ball Duck. Occasional. Breeds.

190. American Bittern. Tolerably common.

221. American Coot. Occasional. Breeds.

263. Spotted Sandpiper. Tolerably common. Breeds. Fresh clutch of eggs taken July 1st.

298. Spruce Grouse. Occasional.

300. Ruffed Grouse. Abundant. Breeds.

332. Sharp-shinned Hawk. Occasional. Breeds.

333. Cooper's Hawk. Occasional. Breeds.

352. Bald Eagle. Occasional. Breeds. With well developed young on July 18th.

360. Sparrow Hawk. Common. Breeds.

364. Fish Hawk. Occasional. Breeds. July 12th a pair had young nearly developed.

370. Great Gray Owl. One taken in the fall, 1889.

373. Screech Owl. Occasional.

375. Great Horned Owl. Tolerably common.

387 or 388. Cuckoo (species undetermined). Occasional.

390. Belted Kingfisher. Abundant. Breeds.

393. Hairy Woodpecker. Tolerably common. Breeds.

394. Downy Woodpecker. Common. Breeds.

402. Yellow-bellied Woodpecker. Tolerably common.

405. Pileated Woodpecker. Occasional. Said to be tolerably common during winter.

412. Golden-shafted Flicker. Common. Breeds.

417. Whip-poor-will. Tolerably common.

420. Night Hawk. Common. Breeds.

423. Chimney Swallow. Common in the village.

428. Ruby-throated Hummingbird. Saw one August 9th.

444. Kingbird. Tolerably common.

456. Phoebe. Pewee. Tolerably common.

467. Least Flycatcher. Common.

484. Canada Jay. Tolerably common.

486. Raven. Common. Breeds.

488. Crow. Common. Breeds.

498. Red-winged Blackbird. Tolerably common.

511b. Crow Blackbird. Common. Breeds.

517. Purple Finch. Saw one ♂.

529. American Goldfinch. Common.

540. Bay wing Bunting. Tolerably common.

542a. Savannah Sparrow. Tolerably common.

558. White-throated Sparrow. Abundant. Breeds.

560. Chipping Sparrow. Tolerably common.

567. Black Snowbird. Abundant. Breeds.

581. Song Sparrow. Abundant. Breeds.

584. Swamp Sparrow. Common. Breeds.
 598. Indigo Bird. Occasional.
 613. Barn Swallow. Common in the village.
 614. White-bellied Swallow. Common in the village.
 619. Cedar Bird. Abundant. Breeds.
 624. Red-eyed Vireo. Common. Breeds.
 636. Black and White Creeper. Tolerably common.
 645. Nashville Warbler. Common. Breeds. Fresh eggs, July 5th.
 652. Summer Yellow Bird. Common.
 654. Black-throated Blue Warbler. Tolerably common.
 655. Yellow-rumped Warbler. Common.
 657. Magnolia Warbler. Common. Breeds. With large young on July 7th.
 659. Chestnut-sided Warbler. Common.
 667. Black-throated Green Warbler. Tolerably common.
 674. Golden-crowned Thrush. Tolerably common. Breeds.
 679. Mourning Warbler. Common. Breeds. Nest with full-fledged young July 8th.
 681. Maryland Yellow-throat. Common. Breeds.
 686. Canadian Flycatching Warbler. Tolerably common.
 687. American Redstart. Tolerably common.
 721. House Wren. Tolerably common.
 722. Winter Wren. Common. Breeds.
 727. White-bellied Nuthatch. Tolerably common.
 728. Red-bellied Nuthatch. Tolerably common.
 735. Black-capped Chickadee. Abundant.
 748. Golden-crowned Kinglet. Tolerably common.
 758a. Olive-backed Thrush. Tolerably common. Breeds. Fresh eggs July 4th.
 759b. Hermit Thrush. Tolerably common.
 761. Robin. Common.
 766. Bluebird. Common.

Alvan H. Alberger.

Ithaca, N.Y., March 10, 1890.

Some Indian Names of the Birds of Lake Superior Region.

Just returning from a tramp to the Illicilliwaet glacier in the Selkirk Mountains, I entered the dining room of the Glacier House, the only hotel at Glacier, B. C. In fact, this hotel, the railroad station and the little houses of the Chinese help of the hotel, are the only buildings in the place.

This entering of the dining room was primarily induced by a desire to appease a hunger whose existence was justified by the walk up to the glacier and back; then, on principles, I never miss a meal when I am at a hotel where I am morally certain of being obliged to pay whether I eat or not. It is policy to eat, and eat heartily, under the pressure of a positively unavoidable demand to settle your little account of three dollars per day. Then, too, it makes the landlord feel that you appreciate the food, and where the table is well supplied, you yourself may feel that you are getting your money's worth. Besides, it prevents the too rapid increase in the number of millionaire landlords, and in this case the landlord was a soulless corporation, the Canadian Pacific Railway. Therefore, as my hunger was like the food, that is, first-class, I did eat, and found no difficulty, beyond a slight strain before the giving way of a button brought relief, in compassing the entire bill of fare. Before me was a large vase of beautiful wild flowers, almost all new to me, fresh from the mountains. They were likewise in front of a young lady, who had just about reached the dessert when I began. As I did eat, and was rapidly overhauling the young lady, I made a mental summary of her, and as people will, tried to determine her position in the scale of humanity. I had not seen her with anyone, we two were the sole and only boarders in the hotel—guests—I should say boarder-guests. She was travelling alone. She was slight, short in stature, almost delicate looking, wore a blue dress, black curly hair and glasses. A quiet, unobtrusive dignity, a modest unassuming appearance. She was talking to the waiter—waitress more definitely. Her words were precise, without any pedantic affectation, and she spoke so sensibly and evinced such individualistic traits of mind that I became more than ordinarily interested. I had seen her in the morning going out of the hotel as if she was simply going to walk on the plank platform, and without giving much thought to it had put her down as a traveller doing the Canadian Pacific Railway, seeing what she could from the car windows and the piazzas of the hotels, but not as one liable to go outside of the beaten track of the tourists. Of the schoolmarm species, I thought, perhaps a "blue-stocking." Now what was I to think of her? I soon made up my mind that my judgment was at fault. What *her* judgment of me was I know not, but my appearance would have justified her in calling the clerk to eject me.

When I heard her say that she had walked ten miles that forenoon I mustered up courage enough to speak, not in opposition to her statement, but it was a good opportunity to speak, waiving entirely the formality of an introduction. The situation did not demand the usual form, so we chatted. The bouquet of flowers before her she had gathered that morning in her tramp. She was an enthusiastic botanist. "You wouldn't think," she said, "from my tramp of ten miles this forenoon that I had just recovered from a severe attack of pneumonia." That circumstance I admitted hardly put her in the ranks of invalids.

I found her a charming conversationalist, a keen, discriminating observer not only in the realm of botany, but in all the physical features of mountain scenery and in all forms of life. As I had just been shooting birds and collecting butterflies we had common ground for conversation and exchange of ideas. She could tell one bird from another, and not content with simply being aware that there was a concrete thing called "bird" under her eye, she observed it with critical eye, noting its form, its colors, its characteristic movements, its peculiar song, and she could whistle and imitate the notes of birds admirably. She was visiting the Rockies, going through to the Pacific and then up to Alaska. This was not her first trip across the continent, having crossed once before over the same line of the Canadian Pacific Railway. Her home was New York. She had just come from Banf, where, taking another lady as a companion, she had gone with a guide to Devil's Lake; had trolled for and caught the lake trout, one being seven pounds in weight; and had slept over night in an old camp or hut, the guide sleeping on the beach. A bear came around in the night but he did not molest the campers, and his tracks were discovered next morning.

Stopping at Donald, which place I had just left, she entered into conversation with some of the old inhabitants about the birds, asking them what birds were found there. "Oh! there are no birds about here," "this is not the place for birds," "only a Robin or two and a Bluebird are found here." At the same instant her critical ear was distinguishing the notes of a dozen different species. All birds to them were Robins, Bluebirds, or "Chippers." They were not cognizant of any difference in the songs, if in fact, they heard the songs.

My new found acquaintance was unique. She not only was observing bird life minutely but she was going to have her guide shoot

some specimens and she was to essay the task of skinning and making up the skins, although she had never tried it, but had merely been shown how. This speaks volumes for her determination and confidence. A copy of Coues' *Key* was in her possession. She was not a trained ornithologist but a careful observer. A year or two ago she had made a trip to the Nepigon region, to the north of Lake Superior, and had there taken an Indian squaw as a companion—a sort of chaperone—and with a young Indian as canoeman and guide, had camped on the shores of the Nepigon, and with fly rod had caught trout. A four-pounder was her greatest trophy, and she landed him unaided. This made me, a follower of Isaac Walton, feel that I had met a companion indeed, one who had been very close and intimate with nature. She had plied the Indians with all sorts of questions, especially in regard to bird life and the names of birds. The young man, her guide, was very intelligent, and was educated, having studied in one of the colleges established by the Jesuits. He was "up" in Latin and was able to give reliable information.

A Jesuit missionary, one of those patient, zealous workers among the Indians, seen so often in Canada had given her much in regard to the Indian names of birds, assuring correct orthography and correct pronunciation.

The subjoined list gives a few of the names with meaning, which she was kind enough to write out for me. It will be noticed that the name fits perfectly, either as a description of the bird's habits or as giving the individual note or song characteristics or some peculiar feature of form. She had practised under the tutelage of the Indians the proper pronunciation of the names, and herein in the soft Indian tongue lies the chief charm of the names.

I was speaking to some of the hotel attendants, asking if the Canadian Jay or Moose bird, was found about Glacier. The guide and others did not know it. My lady friend suggested that I use the name Whiskey Jack. I did so and the guide knew at once. The name given to the Moose bird and the reputation he has and the disrepute he has fallen into among campers, the Indians of Lake Superior say are not justified by facts. He is called an intruder, a thief, a villain, a meddler. Not so; long before man came, the Moose bird was here, these forests were *his* home, he lived in peace undisturbed. Then came man, the intruder, with no right to disturb him in his

home. And now when he comes around camp he is only asserting his rights to move as he pleases, and if necessary laying a simple tax on the intruding man. He is not to be deprived of his own by man or frightened away. The woods and all they contain were his long before man came with his arrogating assumptions.

Now, who is the intruder? Notice the fitness of the names below.

Cedar Bird, "*the bird that is chief.*" Gravity, sedateness, quietness, occupying without attention or noisy display the uppermost places. The attributes of a chief are his.

Then Sandpiper, "*he who dwells on the beach,*" a dweller there, not a visitor.

Whiskey Jack, *Gwingwishi*, following people to thieve.

Gull, *Guyosk*, being white.

Crow, *Aundik* or *Andiq*, being black.

Great Gray Owl, *Ko-ko-ko-o*.

White-headed Eagle, *Migise* or *Megeze*, rapacious.

Loon, *Maung*.

Fort William Indians, large; Nepigon Indians, brave hearted.

White-throated Sparrow, *Kekek*,—name given by Fort William, Lake Superior Indians. *Dah-je-ba*, name given by Nepigon River Indians.

Robin, *Kwushqua*,—imitation of bird's cry.

Osprey or large Fish Hawk,—*Bid-je-gi-kwane*,—bring fish to feed her little ones.

Shrike or Butcher bird, *Gi-bo-nan-si*,—which puts itself across the way of other birds.

Sandpiper, *Chit-wae*,—which dwells on the beach.

Fish Duck, *Au-sig*,—bristled crest.

Large Woodpecker or Black Cock, *Mémé*.

Cedar bird, *O-gi-ma bi-mi-shi*,—the bird that is chief.

Kingfisher, *O-gush-ke-mu-ni-shi*,—cut up to a point (in allusion to his head crest).

Small Screech Owl, *Wa-je-ko-nesi*,—white-billed.

Bluebird, *Ja-wé-nok*,—coming from the south, (Fort William Indians). The Nepigon Indians give another name.

Chickadee, *Ge-je-ge-je-ga-nah-shi*,—imitation of its song.

H. K. B.

Nesting of the Yellow-bellied Sapsucker.

This handsome Woodpecker is of common occurrence throughout temperate North

America, east of the plains, where it is replaced by its varieties, the Red-breasted (*Sphyrapicus varius ruber*) and Red-naped Woodpeckers (*Sphyrapicus varius nuchalis*). It, however, prefers its northern range in which to breed, and in favored localities it is one of the characteristic summer birds.

This species (*Sphyrapicus varius*) was very abundant during the migrations at Minneapolis, Minn., but very few remained to breed, owing no doubt to the small timber in the vicinity. Lake Minnetonka, fifteen miles from Minneapolis, however, is situated in what is known as the "big woods," and this has always been a favorite resort for the Yellow-bellied Sapsucker. It was my good fortune to spend the summer of 1888 at this beautiful lake, and excellent opportunities were offered to observe their nesting habits.

By May 15th the woods were teeming with bird life, as it was the height of their migrations. Gay little Warblers were by far the most numerous, and such rare species as Tennessee (*Helminthophaga peregrina*), Cape May (*Perissoglossa tigrina*), Bay-breasted (*Dendroica castanea*) were abundant. Even the Evening Grosbeaks (*Hesperiphona vespertina*) had not left yet, and their noisy notes could be heard in many directions. The Yellow-bellied Sapsuckers were constantly in sight, at times sitting on the top branches of the tallest trees ready to snap up the first insect that showed itself. They are expert flycatchers and live in a great measure on them. Others were seen flying from tree to tree in their peculiar undulating flight. They are a very odd bird and will bear any amount of watching. Their actions at times are most comical. They have a habit of lighting on the trunk of a tree, and remaining in the same stupid position for a quarter of an hour or more at a time as if in deep meditation. At such times they will suffer themselves to be closely approached, and then they seem to wake up and appear greatly startled. Then they immediately dart around on the opposite side of the tree, and as you walk around it they will endeavor to keep the tree between you and themselves, at the same time creeping to the top branches, where they will sometimes lie flat on a limb like a squirrel and in that position they are not readily observed.

At this point the birds were mated and were always together. On May 16th I found a pair busily engaged in excavating a hole in a dead bass wood stump about thirty feet high. They had commenced to dig at a point about two

feet from the top of the stump, and at about the same distance still further down were two more old holes, probably last year's nesting sites. They had evidently finished work on the first hole, and the next day they immediately began to dig another hole about a foot below the first one. This they completed in two days as the wood was very soft.

I visited the place several times daily, and sometimes I found the birds in one hole and sometimes in the other—the male as often as the female. Things were getting rather mixed, and to add to my consternation I discovered a new hole being excavated on the opposite side of the stump. In this case I always observed it was only the male that was at work, but I could not tell in what hole the female was laying. I thought, however, it was in the lower one, so on May 20th I opened it only to find it empty. I now felt satisfied that the nest was in the upper one, and two days afterwards (the 22d) I tore open this nest and as I reached down I felt eggs.

What a delightful sensation there is about it! I brought them out one at a time until I had a nice set of five. I reached in again for luck and under the soft chips I found another—six. In I went again, one more—seven. This was all, for I removed the chips until they would not cover a Hummingbird's egg. They were perfectly fresh as I could see the yellow yolk through the glossy shell.

In considering the matter I found that in order to lay one egg each day they must have begun on the 16th, the day they finished digging, unless they laid more than one a day. Both the Florida Gallinule and the Sora Rail lay more than one egg a day to my certain knowledge, but whether the Woodpecker did or not I am of course unable to say.

Just as I started up the stump, the male bird, who was on the eggs, flew to a neighboring tree and set up a plaintive cry like *Ki-i Ki-i* shrill and drawn out. When I came down the birds flew immediately to the ragged hole where their nest was, and first one bird would take a peep in a dazed sort of way, then the other; finally the male mustered up courage enough to venture inside, but soon came out, and after a short consultation both flew off.

It was a matter of wonder to me how the birds could enter a hole so small as they did. The entrance to this nest was by measurement but an inch and three-eighths in diameter, and to my eye perfectly circular. It went straight in for a distance of about two inches and then

turned abruptly down and gradually assumed a pear shaped form, wide and spacious at the bottom with a floor of soft chips.

In the meantime I had located another pair building in an iron wood stump. I profited by my first experience and traced the nesting tree by the chips scattered about. The stump was about fifteen feet high, and leaned at an angle of about forty-five degrees. The nest was within a foot of the top and on the underside.

On May 28th I opened this nest. I first cut a suitable tree with a good crotch at the end, and this I placed firmly against a tree and ascended without difficulty. But to open the nest was quite another thing for the wood was dense and solid and thoroughly seasoned. My dull hatchet would hardly make a mark on it, and what was worse, every time I struck the stump it would shake and vibrate so that there was danger of the eggs being broken. I finally succeeded in reaching the eggs, by "chewing" off the top of the stub by keeping doggedly at it with the old relic that had served as a wire cutter and coal chisel among other things.

The nest contained a set of five slightly incubated eggs, and whole much to my surprise, as when I was making the opening a great many large chips fell in.

My next was found June 3d, at a height of about fifty feet in the dead top of a large Maple. This nest was also discovered by the presence of chips from the nest. It contained five fresh eggs.

On June 23d, as I chanced to pass the stub I had secured my set of seven from I saw a Yellow-bellied Sapsucker fly from the same hole that the previous set had been found in. Upon an examination I found another set of four incubated eggs, and what is more I found a small runt egg in the hole on the opposite side of the tree. The runt egg was about the size of a Phoebe's and contained no yolk.

The birds seem to prefer the society of man rather than the seclusion of the woods, as all the nests found were within a hundred yards of a large hotel, where trains and steamboats were moving about.

The eggs are very small for the size of the bird, barely exceeding in size those of the Hairy Woodpecker, but are quite different in shape, being more of a true ovate, and contrary to previously published accounts, those eggs collected by myself are *very glossy*.

I must not forget to mention a peculiar trait the birds have of lighting on telegraph

poles and pounding on the wire as it passes over the glass insulation. The result is a loud singing sound that can be heard a long distance. While the wire is vibrating they will stretch out their necks or cock their heads to one side as if enjoying the sound hugely. Sometimes several will be scattered along the line "telegraphing" to each other. Any resonant body will be selected on which to "drum" as it is called, such as loose shingles and tin cornices of houses, or hollow limbs of trees. I once saw one go so far as to light in the stack of an old locomotive and sound the key note of that. Geo. G. Cantwell.

Lake Mills, Wis.

Further Notes on the Cowbird, with Remarks on the Nesting of the Prothonotary Warbler at Quincy, Illinois.

Until the season of 1889 I had not been aware that the Cowbird (*Molothrus ater*), except on rare occasions, laid its eggs in Woodpeckers' nests or similar cavities used as nesting sites.

During a two weeks' collecting trip to Lima Lake in May, 1889, while searching for Warblers' nests, and in particular those of *Protonotaria citrea*, I found, out of some seventy or more nests of this species examined, that no less than eleven nests contained the egg or eggs of this parasite.

While usually these nests were in holes more or less enlarged and not deep, I noted on two or three occasions that, while the Cowbird's eggs were in the nest the cavity was just large enough to permit the Warbler to enter and apparently too small for the Cowbird. It is also characteristic of this Warbler to remain close about the nest at all times to avoid being deprived of their home by some neighboring pair, for there are more birds than nesting places in the localities searched.

On several occasions a hole would contain a nest and fresh eggs with still another nest built on top of it, also containing eggs, thus showing that some pair had driven off the first occupants. Several of these two-story nests which I brought home with me got somewhat crushed in packing, and the eggs were found broken within them.

Still another nest was found, in which two females had laid, contained nine eggs which were of two different types and piled up on top of each other. Both females were near

and they appeared quarrelsome during the time I watched them.

On this trip I found one nest of the Kentucky Warbler containing but a single Cowbird's egg which the female was patiently incubating. (There was one chipped egg of the Warbler on the ground near the nest.) I passed the nest daily for a week, each time flushing the female at close quarters, and finally I destroyed the egg, which was then nearly hatched, and took the nest. Another remarkable instance was reported to me by my friend George L. Toppan, Esq. of Chicago, Illinois. In this case the Cowbird had deposited its egg in the nest of a Cliff Swallow.

Otho C. Poling.

Fort Huachuca, Arizona.

Are the Changes in the Common Names by the A. O. U. Popular?

FAVORS THE OLD.

Editor of O. & O.:

In April number of O. & O. your request an expression of preference in regard to old and new names of four birds. 534 has always been known here as Snowflake, so I like the change. The other names I prefer as they formerly were. One name may sound more pleasing than another. My neighbor's name is "Sam," should I call him "Ben" every one would laugh.

J. W. P.—Penn.

APPRECIATES EXPRESSION OF POPULAR OPINION.

Editor of O. & O.:

Your invitation in April number for a popular vote on the names of the four birds mentioned, renders good service to ornithology. Beginning with the Snow Bunting, A. O. U. 534, the change of the name to Snowflake does not appear to me a change for the better in any way. In the first place the old name Snow Bunting is the generally accepted one both in America and British Islands. A bird with a common name so well established, it seems to me, should retain it. Although it is often called Snowflake, the first name is the one by which it is most widely known and always has been. Considering the difficulty often of understanding what bird is meant by its common name, it is better to keep the one most used or established, especially when such name is the best descriptive one. The name Snowflake might not be always understood to mean a bird, which Bunting always does. The bird itself cannot be fairly compared to a

snowflake in autumn when the plumage is much mixed with brown; only towards spring does the white predominate. Snowflake has been more locally applied than Snow Bunting, so why not retain its universal name? Many of the same remarks equally apply to our American Grass Finch. Its habit of running before us on roadsides is a much more recognizable feature to most people than its song. In some parts of New England its sweet song at sunset has received its deserved attention and earned the name Vesper Sparrow, but outside of that locality it is generally recognized as the Grass or Ground Sparrow. Those who are not acquainted with its song (by far too many) would never know what bird is meant by Vesper Sparrow, therefore that name would only mystify rather than enlighten the uninitiated. In regard to the Yellow-winged Sparrow I am not so positive, as it is harder to see than hear it during the summer season, while in the fall the young are easily seen and there and then characteristic colors readily recognized. On that account I should rather retain the old name. The same reasoning applies to the Black-throated Bunting, he tells his own name; but as to *Dickeissel* the great uninformed may well ask what the dickens does that mean? *H. H.—N. J.*

A VOTE FROM ONE OF THE PILLARS OF THE O. & O.

Editor of O. & O.:

How quickly one's eye catches the familiar letters of his own name! Oh, if one could only recognize a bird by as slight a glimpse! I opened the last number at page 77, and in a second my eye was arrested by my own name, and when I read and found that I was one of the "only thirty-seven" wasn't I proud? And very good company I found myself in, too; any one would be pleased to see his name side by side with the other thirty-six. However, this was not exactly what I started out to write; I wish to record my vote in favor of the new names on poetic and on common-sense grounds, both. Even their opponents seem to agree that they sound better, and they are, taken as a whole, much shorter. If you add to the four proposed by yourself the three offered by "J. C. C." the old names have one hundred and nineteen letters to the new ones seventy-six. Three and four word names are not wanted when one word ones will answer. I am not, as a general thing, in favor of changes, but when a change is an

improvement let us have it; and certainly the A. O. U. has done a great thing for us in making a standard, and even if there is an occasional name, to which we can not all subscribe, it is so little bitter with so much sweet that we should all join in holding up the hands of the Union.

B. A. G.—N. Y.

DON'T BELIEVE IN FURTHER CONFUSION.

Editor of O. & O.:

In regard to changing names of birds, I think it was a bad plan. They will never lose their old ones, and I think they previously had names enough and good ones, too.

The Bay winged Bunting of Wilson and the Grass Finch of Ridgway now appear on the A. O. U. list as the Vesper Sparrow. It stands to-day a Bunting, a Finch and a Sparrow, what will it be next? As for *Dickeissel* it is a jaw breaking name and does not sound American.

Put me down as favoring the old names. Ridgway's is good enough for me.

J. B. P.—Mich.

THANK YOU! OUR SUCCESS WILL DEPEND
UPON THE HELP OF OUR READERS.

Editor of O. & O.:

Noticing in the April and May numbers of the O. & O. that you desired a full vote of the subscribers of that magazine, I desire to say that I am heartily in favor of the revised "A. O. U." names. I think they are up with the times and much more applicable to the species.

I also desire to add a word in praise of the O. & O. It is a first-class ornithological magazine and always a welcome visitor to both my wife and myself. Wishing you abundant success, I remain,

W. F. W.—N. Y.

NO BETTER AUTHORITY THAN C. J. M.

Editor of O. & O.:

I cannot refrain from congratulating you upon the appearance of the May number of the O. & O. I have followed the fortunes of this publication from the little sheet, first issued by Willard so long ago, to the present time with great interest, and I can assure you that the present number is by far the best that has yet appeared, without any exception. You are now filling a want long felt in this country

for a magazine devoted to the interests of the ornithologists (and of course oölogists also, for the interests of those who study birds and their eggs are inseparable), a magazine of frequent appearance, filled with matter that is appreciated by all, written in a manner that, while it is highly scientific and instructive, in every sense of the terms, does not shoot over the heads of more than one half of its readers, but can readily be understood by all.

I, personally, have only one fault to find, and that is your publication is much too small. We want more of the same sort and another year we trust that you will give us more.

Now a word or two in regard to the votes you are receiving as to the opinions of the ornithologists of the country about certain English names given to certain birds in the A. O. U. check list. I think getting such opinions, a step in the right direction: straws most surely show which way the wind blows. Let us keep in mind the fact that the birds of our country belong to us as a people. Any one of us, or a few of us, may band together and name them what we please, but these names may not necessarily express the ideas of the majority of the great army of ornithologists which now fill our land from ocean to ocean. Now what I want to see expressed in this matter is the *free, unbiased opinion of each and every one* who is interested in the ennobling pursuit of scientific knowledge. The very acme of the spirit of progress lies within this sentiment. Therefore, gentlemen and brothers, let us have *your* opinion, we already know that of the committee of the A. O. U. who made the changes; that is recorded, now let Mr. Webster record yours.

Here is my opinion: I vote most decidedly for no change, and to go a step farther and I have never made the matter a secret, I say that in the adoption of the Latin names of birds, or rather in deciding which name of two or more ought to be applied to a given species, in cases where this has been a mooted question. I should say that where a name has been in current use in this country for let us say a period of twenty-five years, it ought to stand. I should have adopted that incomparable work of Prof. Baird's, the old-time Bible of the ornithologist, the ninth volume of the Pacific R. R. Survey, as a standard and never have gone beyond that. Yes, gentlemen on the other side of the question, I know all about what you will say. You will ask me "What constitutes universal usage?" I answer that a name that has been in current use in this

country for any one of our birds for a long period is the name that should be applied to that bird, be that name Latin or English, for our use, perfectly regardless of what names may have been used by any foreigner. Now this brings me to one point that I wished to make, and that is to ask you, Mr. Editor, in recording the sentiments of the various ornithologists who write on the subject to give the name of the states in which they reside.

C. J. Maynard.

Newtonville, Mass., June 6, 1890.

Flour Moth.

The American Naturalist for February contains an exhaustive article by J. J. Bell on the Flour Moth (*Ephestia kuhniella*), an insect newly imported from Europe, to which country it is indigenous. If this insect increases as rapidly as other European importations, notably the Cabbage Butterfly (*Pieris rapae*) and the English Sparrow (*Passer domesticus*), the damage that it will do will be incalculable, for here we are confronted with a pest which attacks our most important food product, and that in its manufactured state, so that our only remedy is to keep it out, since if it once gains a hold on a lot of flour, it is only by the merest chance that the entire lot is saved from total destruction.

The larvæ spin their web throughout the flour, completely matting the whole substance together, and one season, so rapid is their increase, will suffice to so infest a mill that the only sure remedy seems to be the old Japanese one, viz., "Burn it down."

It is hoped that immediate steps will be taken to crush out the last vestige of this pest, since its increase means a damage of millions of dollars to one of our most important industries.

Seven Eggs of the Arizona Hooded Oriole in One Nest.

Four eggs is the usual set of the Arizona Hooded Oriole (*Icterus cucullatus nelsoni*), but Mr. Theodore D. Hurd has very kindly sent me a set of *seven* taken near Riverside, California, on May 6, 1890. This number is unprecedented, and must be considered unique.

J. P. N.

THE
ORNITHOLOGIST^{AND} OOLOGIST

A Monthly Magazine of
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
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THEIR NESTS AND EGGS,
and to the
INTERESTS OF NATURALISTS.

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Editorial.

Spare the Sparrow.

And now the Massachusetts legislature takes up the English Sparrow extermination question. They may be a nuisance, gentlemen, but why not let them live? Your Bobolink is as destructive a nuisance when on his southern trip. The Robin and the Cedar Bird are not welcome visitors to the cherry tree, and we might mention others that have certain peculiar faults. A colony of the Sparrows may locate in an undesirable place, and we would not object to driving them off, but let it be by individual action. We always maintain that the collection of birds should be allowed for purposes of study and art, but we emphatically object to the enactment of a law to *exterminate any bird*. It is monstrous, unwarranted and cruel.

Uncalled for, as the people are quite capable of handling the question individually, when necessary.

Shortsighted, as it will begin a class of destruction by those who will kill merely for sport, and will not discriminate, but shoot anything that flies.

We sincerely trust that our readers will overlook the few petty and imaginary faults of this little creature, and shield it from the attacks of the same people who are continually

charging us with the destruction of bird life. Never have the collecting ornithologists, so far as we have observed, offered, proposed or instituted a plan so directly liable to annihilate God's creatures as those who manufacture laws by the mile "to protect them?"

Brief Notes.

Just now many of our readers are looking over the collection of eggs that has resulted from the spring's work. The majority of you have taken them without getting a permit, and quite rightly, as we do not think the Almighty ever intended to delegate that authority to any one; it is an individual right and will so be regarded by us all. In so doing we must not overlook the fact that we are inseparably interested in bird protection. They once gone, and our pleasure and entertainment is a thing of the past. We would impress upon you to be careful of your collections. Keep your eggs in drawers where you can examine them without unnecessary handling. Every egg accidentally broken requires another to take its place. The greater the care you take the less you require. Some of our collectors who have large collections will tell you that they seldom lose any. They make them go a long ways.

No law could force us to kill, or prevent us from feeding a small lot of English Sparrows that remain at our back door throughout the year.

The sportsman demands the protection of Grouse. The season opens, with improved gun and dog he falls in with a covey of a dozen to twenty and kills them all, nor does he stop here. He would keep it up every day for the whole season. The ornithologist would take two or three. The sportsman eats his, feels good for an hour. The ornithologist preserves his, and they last him a lifetime, and afford hours of pleasure to him and his friends. The laws in this State protect the sportsman and interfere with the ornithologist.

The Massachusetts S. P. of C. to A. offers 1000 cards to be distributed, on which is offered a reward of \$10 to any one who will convict an ornithologist of killing a bird. Is it not about time to shift that matter on the sportsman? Why not try your hand at stopping him? Perhaps you think boys are safer game.

Oliver Davie's "Nests and Eggs of North American Birds" should be in the hands of all. We do not pretend to be sole agents for it, but we will present a copy to any subscriber who will send us three new subscribers.

RARE.—F. H. Kennard, Chestnut Hill, Mass., reports two Pileated Woodpeckers at that locality, May 3.

Neckties made of rattlesnake skins, tanned, are one of the latest Southwestern novelties. They are ornamented with the rattle.

One of our correspondents again refers to our enlarging the O. & O. We are ready to, when our subscription list warrants it. We send out thousands of sample copies, but depend on paid subscriptions to pay printer's bill.

No Rats about the O. & O., if the printer did say so in the advertising column last month.

Quite a number of our subscribers have ordered Davie's new Taxidermy. "Let the good work go on." Subscription blanks furnished on application.

C. E. Hoyle, of Milbury, is the centre of Natural History interest in his locality. He has quite a fine collection, and from what we hear, many of his young friends are having the benefit of it together with his advice and assistance, and it is not a money making scheme.

Is there not a little unnecessary tinting, when the assertion is made that the English Sparrow is driving off our native birds? We do not notice it, and also have faith that our native birds can look out for their own interests.

Who is the "well-known" ornithologist of Buffalo, N.Y., that has lately published a work on birds in which, if we judge from press quotations, he has devoted his energy mostly to attacking the ornithological members of the Agassiz Association? We should think that organization would present him with an easy chair in which to spend the remainder of his days.

The Summer Hat.

AT THE HUB.—Celia. "Jennie, I have given up the idea of wearing a bird on my hat, it is so cruel."

Jennie. "Why, Celia! What will you wear?"

Celia. "Why, I bought me a lovely bunch of feather flowers, a cluster of pompons, and three silver-tipped quills."

AT GOTHAM.—Enthusiastic clerk. "Ah, madam, allow me to show you some artificial birds. This one, of Impeyan and Hummer, is exquisite, made by hand, regular mosaic work!"

Mrs. Tenderheart. "Oh, how artistic, just the thing. I am so glad that I have found a substitute for birds. I did hate so dreadfully to see the dear little things put to such a use. Do you think three would be too many? Also had I better not have a spray of colored Egret to match?"

AT CHICAGO.—Mother of blooming daughter to clerk. "I think I will have the hat covered with a Swan. Let the head project over front. Spread the wings, line them with Eagle quills, and have a pompon of Duck's wings. Make it strong so it will last till the exhibition."

Homer L. Bigelow sailed on the 7th for Newfoundland, where he will spend some three months, devoting the time to ornithological study of that section. He will represent the O. & O., and if his trip is successful we hope to be able to furnish our readers with notes of interest from that section.

Frank A. Brown, of Beverly, Mass., reports finding a set of six eggs of the Red-bellied Nuthatch (*Sitta canadensis*) on May 23, 1890. The nest was composed of grape-vine bark, dried grass, etc., in a hole in a maple stub, ten feet from the ground. The hole was about eight inches deep. The eggs measured .62 x .49; .63 x .49; .61 x .49; .62 x .52; .62 x .49; .61 x .50.

THE CROW'S FONDNESS FOR CHICKEN.—It is getting so now that the farmer and poultry raiser have more to fear from the ravages of the Crow than from all others of the feathered tribe. He will come down into the door-yard, right under the farmer's nose and fly off with a chick, and the old "scare-crow" of by-gone days has no effect upon his nibship when he is after his favorite morsel. Why is it that, until lately, we have heard nothing of this habit of the Crow? Is it something new of him? I for one have noticed it only for the past two years.—[S. R. Ingersoll, Ballston Spa, N.Y.]

South Framingham, Mass., May 17, ♀ Virginia Rail and ten eggs taken. Incubation, four to six days. Locality, east side Milford Branch R.R. south of Framingham. F. E. Coombs.

The list given in May issue, as being subscribers in 1881, and appearing on our books for 1890, only included those who had been continuous and taken the O. & O. in their own name.

George G. Cantwell has removed to Colorado Springs, Colo. We have received some notes from him which will be published soon.

Frank A. Bates (Editor) will start on the 21st for a trip to the Dead River region, New Hampshire. This district, near Mount Nancy, while only comparatively a short trip from Boston is almost unexplored.

A Yellow-breasted Chat, taken at Arlington Heights, Mass., June 6. W. P. Hadley.

The small auxiliary barrel, made to slip into a 12-gauge gun, in which can be used .32-cal. shells, is becoming quite popular. They shoot well and make little noise.

As previously noted, considerable effort was made during the past season by Boston sportsmen to introduce in this state game birds from the west. The attempt is one that is of great interest to us all, and we hope that our collectors will refrain from shooting any of the quail species. It is an easy matter to obtain specimens for our use from the west, far more so than to procure them alive, as has been done by these gentlemen. Let us all unite in assisting what will be a future benefit. Remember, self-denial will be an important feature.

Correspondence.

Evening Grosbeak in Michigan.

Editor of O. & O.:

I see in this journal a number of naturalists speaking of the Evening Grosbeak. May 17 I shot three ♂ birds. There were a number shot here this winter, and the Rose-breasted Grosbeak is very common just now.

J. Hazelwood.

Fort Gratiot, Mich., May 18, 1890.

Editor of O. & O.:

Allow me to add an instance of the breeding of Wilson's Thrush in Pennsylvania, to the report of Messrs. Norris and Koch in May O. & O. I have a set of three eggs of this bird taken June 10, 1885, in Delaware County, Pa.

Thad. Surber.

White Sulphur Springs, W. Va.

Nest and Eggs of the Ruby-crowned Kinglet.

On June 9th, Harry Austen secured a nest and eleven eggs of the Ruby-crowned Kinglet at Dartmouth, Nova Scotia. His notes of last year will be remembered by our readers. His record stands first.

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—AND—

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No. 7.

A Series of Eggs of the Great-tailed Grackle.

The eggs of the Great-tailed Grackle (*Quiscalus macrourus*) bear a strong resemblance to those of the Boat-tailed Grackle (*Q. major*) but average longer. There is nothing like the variation of coloration shown in the eggs of either of these species that one is familiar with in those of the Purple Grackle (*Q. quiscula*) and the Bronzed Grackle (*Q. quiscula aeneus*).

Set I. April 18, 1889. Camargo, Mexico. Nest in mesquite tree ten feet from ground. Composed of grass, leaves and mud. Four eggs, incubation begun. Pale bluish, but at the smaller ends the ground color is purplish gray. The markings consist of lines running around the eggs, and these are more or less wavy, and are of burnt umber and clove brown. They are closer together and heavier near the smaller ends: 1.23 x .89; 1.26 x .85; 1.26 x .85; 1.32 x .86.

Set II. April 29, 1889. Camargo, Mexico. Nest in swamp, among reeds. Four eggs, fresh. Pale bluish, clouded at the smaller ends with raw umber, and lined with burnt umber and clove brown: 1.20 x .88; 1.25 x .90; 1.20 x .86; 1.21 x .84.

Set III. May 19, 1888. Nueces, Texas. Nest in reeds, eighteen inches up. Four eggs, incubation begun. Pale bluish, with faint raw umber cloudings at the smaller ends, and lined with seal brown and black: 1.29 x .87; 1.34 x .89; 1.26 x .85; 1.34 x .89.

Set IV. April 4, 1889. Camargo, Mexico. Nest in bunch of reeds, two feet above the water. Four eggs, incubation begun. Pale bluish, clouded at the smaller ends with raw umber and lined with black: 1.25 x .86; 1.26 x .91; 1.23 x .88; 1.24 x .85.

Set V. April 29, 1889. Camargo, Mexico. Nest in swamp, in tuft of rushes, and made of

swamp grass, mud, etc. Four eggs. Pale bluish, heavily clouded with raw umber at the smaller ends, and lined with black: 1.27 x .84; 1.23 x .85; 1.21 x .85; 1.21 x .86.

Set VI. June 15, 1889. Camargo, Mexico. Nest in a low tree near the river. Composed of grasses, etc. Four eggs, incubation begun. Pale bluish, three of the eggs being faintly clouded at the smaller ends, with raw umber, while the other is unclouded. All four are lined with black: 1.16 x .84; 1.20 x .84; 1.15 x .81; 1.21 x .84.

Set VII. April 29, 1889. Camargo, Mexico. Nest of dry grass, etc., in reed swamp, four feet from water. Five eggs, incubation advanced. Pale bluish, heavily clouded at the smaller ends with raw umber, and profusely lined with black. The majority of the markings are at the smaller ends: 1.24 x .86; 1.25 x .81; 1.23 x .87; 1.25 x .78; 1.15 x .80.

Set VIII. April 18, 1889. Camargo, Mexico. Nest of grasses, etc., in low bush near the ground. Five eggs, incubation begun. Pale bluish; two of the eggs having a raw umber tint near the smaller ends, but the other three have the plain ground color. All are profusely lined with burnt umber and seal brown: 1.21 x .85; 1.22 x .86; 1.25 x .89; 1.24 x .85; 1.25 x .90.

Set IX. May 4, 1889. Camargo, Mexico. Nest of dry grasses, straw, papers, etc., placed in tree, fifteen feet from the ground. Four eggs, fresh. Pale bluish, faintly clouded at the smaller ends with raw umber, and lined with black: 1.36 x .89; 1.27 x .88; 1.29 x .90; 1.29 x .91.

Set X. April 18, 1889. Camargo, Mexico. Nest of twigs, grasses and rubbish, mixed with mud, in small tree. Four eggs. Pale bluish, three of them clouded with raw umber at the smaller ends, but the fourth has the ground color plain. All of them are lined with burnt umber and black: 1.30 x .86; 1.29 x .85; 1.36 x .84; 1.26 x .87.

Set XI. May 3, 1889. Camargo, Mexico. Nest of grass, weeds, stalks and mud, in small tree. Four eggs, fresh. Pale bluish, faintly clouded at the smaller ends with raw umber, and heavily lined with black: 1.32 x .85; 1.31 x .85; 1.28 x .84; 1.25 x .88.

Set XII. May 4, 1889. Camargo, Mexico. Nest principally of grass, in ebony tree, ten feet from the ground. Four eggs, fresh. Light bluish, clouded at the smaller ends with raw umber, and heavily lined with black: 1.28 x .86; 1.29 x .85; 1.21 x .86; 1.35 x .85.

Set XIII. April 18, 1889. Camargo, Mexico. Nest of weeds, grass, etc., in mesquite tree ten feet from ground. Four eggs, Pale bluish, three of the eggs more or less clouded all over with raw umber, but the fourth has the cloudings at the smaller end. All are heavily lined with black: 1.28 x .85; 1.23 x .89; 1.25 x .84; 1.29 x .87.

Set XIV. April 17, 1889. Camargo, Mexico. Nest of dry leaves, grass, etc., in small tree, six feet from ground. Four eggs, fresh. Pale bluish, clouded more or less all over the surface, but especially at the smaller ends, with raw umber. Lined with burnt umber and black: 1.20 x .86; 1.17 x .83; 1.18 x .87; 1.20 x .85.

Set XV. May 15, 1884. Pelican Island, south-east coast of Texas. Nest of rough, fibrous plants, built on the top of a Spanish bayonet plant. Five eggs, fresh. One of them is bluish, another drab, and the other three are drab-gray. All but the drab egg have raw umber cloudings at the smaller ends, and all are heavily lined with black: 1.34 x .88; 1.30 x .89; 1.31 x .89; 1.24 x .86; 1.30 x .88.

Set XVI. May 14, 1884. Corpus Christi, Texas. Nest in prickly pear cactus, four feet from ground. Five eggs, fresh. Pale bluish, more or less clouded, but especially at the smaller ends, with raw umber, and lined with black: 1.43 x .91; 1.38 x .90; 1.30 x .87; 1.28 x .85; 1.26 x .89.

Set XVII. May 20, 1884. Padre Island, Texas. Nest in low bush. Five eggs, fresh. Pale bluish, more or less clouded all over the surface, but especially at the smaller ends with raw umber, and heavily lined with black: 1.27 x .88; 1.29 x .93; 1.32 x .86; 1.30 x .89; 1.35 x .84.

Set XVIII. April 23, 1889. Camargo, Mexico. Nest of grasses, and placed in top of a small ebony tree. Four eggs, fresh. Pale bluish, clouded unevenly over the surface, but especially at the smaller ends, with raw umber, and heavily lined with burnt umber

and black: 1.31 x .86; 1.23 x .87; 1.27 x .88; 1.24 x .87.

Set XIX. May 20, 1888. Nueces County, Texas. Nest in reeds, three feet from the water. Four eggs, incubation begun. Pale bluish, heavily clouded with burnt umber at the smaller ends, and heavily lined with black: 1.37 x .88; 1.38 x .88; 1.34 x .86; 1.36 x .85.

Set XX. June 26, 1889. Camargo, Mexico. Nest in mesquite bush, six feet from the ground. Four eggs, incubation advanced. Pale bluish, clouded at the smaller ends with raw umber, and lined with burnt umber and black: 1.28 x .85; 1.20 x .82; 1.25 x .79; 1.29 x .84.

Mr. Ridgway, in his *Manual of North American Birds*, page 381, gives the size of the eggs of this species as 1.31 x .87, but it will be noticed that the great majority of those in the above series are not that large.

A peculiarity of the eggs of the Great-tailed Grackle is the manner in which they are almost always clouded at the smaller end with a shade of brown. This makes them appear as if the ground color was of two shades—brownish at the smaller ends and bluish at the larger. I have never noticed this in eggs of the Boat-tailed Grackle, although I have good sized series of both species before me.

J. P. N.

A Four-Storied Nest.

At a meeting of the London Ornithological Section of the Entomological Society of Ontario, Mr. J. Osborn exhibited a four-storied nest of the Yellow Warbler (*Dendroica aestiva*), which he had recently taken near London. In the lower story a Cowbird's egg had been laid, then the second story was put on and another Cowbird's egg laid, a third story added and a third Cowbird's egg laid in it, and in the fourth story were two eggs of the Warbler herself.

Mr. H. Stevenson reported a nest of the same species, seven inches deep outside, which had the appearance of having been built in different seasons, but the nest was unfortunately lost on the drive in from the country.

Other members of the section reported having found nests of the Yellow Warbler with a single Cowbird's egg partly buried in the floor of the nest so that it would not hatch. In one instance the young were hatched and the Cowbird's egg rotten when found.

D. Arnott.

Isle Royale.

Some ten miles north-east from the eastern end of Isle Royale lies a group of rocks, the largest scarcely two acres in extent, looking in the distance like three black mounds resting on the blue waters of Lake Superior. For a number of years past this has been the principal nesting place in the north-west, of the American Herring Gull, and owing to its isolated situation and inaccessibility has been visited, aside from the few fishermen who supply themselves with fresh eggs each year, by less than half a dozen people the past six years.

On May 22nd my brother and myself were dropped from the fish boat Dixon in a small rowboat at the north-east end of Isle Royale intending to risk the row across the ten mile space to Gull Islands, but tempestuous weather prevented and we camped on the rocks until the 26th, when we engaged the services of a Finland fisherman and his staunch sailboat for the trip. Starting at daylight we reached the rocks after a three-hours sail.

Before the detail of the rocks are seen there is apparently no sign of life, but as we drew near, the rocks, as our fisherman expressed it, looked as though they were covered with Snowbirds, distance dwarfing the Gulls in the clear air, but drawing still nearer they increase to their full size and present a beautiful appearance on the black rocks. A half dozen came out a half mile to meet us with loud cries as a protest against this intrusion, and by the time we had landed at the only available spot on the islands the whole colony of over a thousand Gulls were either circling above with loud cries or resting on the water a short distance away.

The ledge of rock composing the islands is inclined at an angle of 45° , and affords numerous deep niches which have become filled with guano, and form level places for the nests which were often formed by hollowing out a place in this deposit, but the majority of the nests were made of a peat-like substance, the roots or fibres of moss and coarse grass mixed and matted together, and where they had not been disturbed by the fishermen, contained three eggs with incubation well started at this date. Some of the birds showed great lack of judgment in the location of their nests; one containing three eggs was located on a narrow gravel beach ten feet below, where the last north-easter had lodged the drift wood, and there were some thirty nests in this little patch

of drift wood itself. But a still greater lack of judgment was shown by at least four different Gulls who had placed their nest on top of the huge icebergs formed on the rocks by the dashing of waves last winter. The few warm days had already honeycombed the mass and melted away from around the nests leaving it resting on a white pillar of ice nearly two feet above the surrounding berg with one side of the nest already toppling down. A few more warm days would send the whole mass into the lake.

We secured many beautiful sets of eggs, which show a wide range of marking.

The rocks seem to be well tenanted, besides the Gulls, numerous Warblers and small birds hung around the scraggly brush at one end of the rock, and a Sparrow dragged its wings as it fluttered along the ground, probably from its nest. A pair of Hawks, which we did not identify, occupied the ends of two upright posts left by the United States surveyors years ago, and the ground beneath was covered with pellets which they had disgorged. During the season of migration the smaller birds reach these rocks completely exhausted and these Hawks gorge themselves on the helpless victims.

On approaching the island we saw three small birds fluttering towards it some little distance apart. The Hawk came out, seized one, deposited it somewhere on the rocks then whirled about and secured the next and deposited it with the other and finally secured the third. A shelving, mossy place about four feet square seemed to be a perfect slaughter pen for small birds; the bushes and rocks around were covered with feathers scattered by the winds, while this particular spot was covered with the larger feathers and ends of wings of all kinds of smaller birds with a great many Flicker feathers mixed in to give it color. Scratching with a stick disclosed nearly an inch in depth of wet, matted feathers. The destruction of small birds by this one pair of Hawks must have been enormous. After the season of migration is over they pluck an occasional young Gull from its nest, and the fishermen claim that it attacks the old Gulls themselves when hungry. We found their nest on the highest part of the rocks containing two fresh eggs, the fisherman having destroyed a set of four three weeks previously. Of the Gull nests from which eggs were taken the same time, we found but a single fresh egg, showing that they had just commenced to lay the second set. Such eggs were much smaller than the first laying. We saved a few skins of

the female Gulls at the island, and after returning to Isle Royale shot and skinned a dozen males from a flock of fifty or sixty hovering about the fish houses, in fact all the Gulls shot away from the island were males. The facilities for reaching Isle Royale grow better each year, and it is a question of but a short time when this large nesting place will be broken up and its denizens forced beyond the limits of the United States.

Loons are quite plentiful in the channels and harbors of Isle Royale, and the fishermen often catch them on their set lines when fishing for trout. A long line is anchored about two fathoms from the surface and short lines with hooks attached at intervals. These hooks are baited with herring about a foot long and these the Loon see beneath the water and in diving get caught on the hook. One fisherman had six on a line of seventy-five hooks the morning before we arrived and had the breasts skinned and tacked on the shed to dry to be used as lining for his boots.

June 4, '90.

Frank S. Daggett.

A Series of Eggs of the Bobolink.

In his *Manual of North American Birds*, page 366, Mr. Ridgway falls into the strange error of stating that the Bobolink (*Dolichonyx oryzivorus*) lays from two to five eggs, whereas any number less than four would be an incomplete set, and six and seven not unusual.

Considering how very common the birds are it is astonishing how hard it is to find their eggs, and to this fact must be ascribed their comparative scarcity in collections. They vary greatly in color and markings.

Set I. June 10, 1888. Cayuga County, N.Y. Nest of fine, dry grass, on ground in meadow. Five eggs, incubation commenced. Bluish-gray, spotted and veined with burnt umber and sepia. Some of the spots are large, and there are more of them at the larger ends than on any other part of the eggs. There are a few spots of olive-gray also: .88 x .65; .85 x .65; .86 x .64; .86 x .63; .86 x .66.

Set II. June 7, 1888. Austin, Ill. Nest of dried grasses on ground, in a clump of weeds. Six eggs, incubation begun. Bluish-gray, spotted with burnt umber and clove brown, the markings being heavier at the larger ends: .87 x .60; .84 x .61; .77 x .58; .76 x .58; .77 x .59; .79 x .57.

Set III. June 13, 1887. Farmington, Me.,

Nest of fine grass, in a field of tall grass at the foot of a bunch of ferns. Six eggs, incubation advanced. Bluish-gray, speckled and spotted with burnt umber. Some of the spots are large, and most of them are at the larger ends: .82 x .60; .79 x .60; .77 x .59; .74 x .59; .75 x .57; .81 x .60.

Set IV. June 11, 1888. Galewood, Ill. Nest of grass, in wagon rut caused by passage over prairie while in boggy condition in early spring. Seven eggs, incubation advanced. Bluish-white, spotted and veined with bistre and seal brown: .82 x .65; .83 x .65; .81 x .63; .84 x .64; .80 x .65; .81 x .65; .84 x .68.

Set V. June 13, 1879. Hyde Park, Ontario. Nest of straws and grass on the ground, in a meadow. Six eggs, incubation advanced. Drab-gray, speckled with drab, and marked with large spots of sepia; nearly all of the latter being at the larger ends: .78 x .62; .76 x .63; .79 x .63; .76 x .63; .77 x .64; .78 x .63.

Set VI. June 15, 1885. Farmington, Me. Nest made entirely of grass, and placed on the ground. Five eggs, fresh. Bluish-gray, spotted with olive gray, Vandyke brown, and seal brown. The markings are principally confined to the larger ends: .90 x .64; .86 x .63; .83 x .62; .88 x .64; .90 x .64.

Set VII. June 20, 1888. Cayuga County, N.Y. Nest of dry grass, on ground in clover meadow. Five eggs, incubation advanced. Gray, with a brownish tinge, spotted with drab-gray, and large blotches of chestnut: .89 x .66; .88 x .66; .87 x .63; .90 x .66; .92 x .65.

Set VIII. May 15, 1887. Erie County, N.Y. Nest of grass, on ground in open field. Five eggs, incubation commenced. Brownish-gray, spotted with chestnut and russet: .81 x .63; .86 x .61; .79 x .62; .79 x .61; .85 x .61.

Set IX. May 30, 1884. Washington County, N.Y. Nest on ground, under a bunch of grass. Five eggs, incubation commenced. Ecru-drab, spotted with drab-gray and chestnut: .85 x .63; .80 x .62; .86 x .63; .81 x .62; .80 x .59.

Set X. June 16, 1888. Cayuga County, N.Y. Nest a few dry blades of grass, on the ground, in a meadow. Four eggs. Grayish, with a tinge of blue, mottled with drab gray, and spotted with chestnut and sepia: .87 x .65; .89 x .67; .88 x .63; .84 x .65.

Set XI. June 26, 1888. Cayuga County, N.Y. Nest of dry grass, on ground in meadow. Four eggs. Bluish-gray, heavily spotted with chestnut: .90 x .65; .88 x .65; .88 x .66; .88 x .65.

Set XII. June 2, 1888. Austin, Ill. Nest of dry grass, on ground. Five eggs, fresh. Bluish-gray, spotted with chestnut, much

more heavily at the larger ends: .78 x .65; .80 x .65; .78 x .65; .79 x .65; .81 x .65.

Set XIII. June 2, 1888. Austin, Ill. Nest of dried grass, in a slight depression of the ground. Five eggs, fresh. Drab-gray, heavily spotted with burnt umber, especially at the larger ends: .93 x .63; .93 x .63; .89 x .63; .89 x .62; .92 x .60.

Set XIV. May 30, 1888. Austin, Ill. Nest of grass, on ground, in a depression made by a horse's hoof. Six eggs, fresh. Bluish-gray, very heavily spotted with drab-gray, and burnt umber. The markings are heaviest near the larger ends: .84 x .64; .88 x .64; .88 x .64; .87 x .61; .89 x .63; .84 x .63.

Set XV. June 3, 1883. Bristol County, Mass. Nest of grass, in a hollow in the ground in large meadow. Five eggs, incubation begun. Bluish-gray, spotted with drab-gray and sepia. All the spots of the latter color are near the larger ends: .82 x .66; .82 x .65; .80 x .66; .82 x .65; .81 x .65.

Set XVI. June 10, 1888. Austin, Ill. Nest on ground, in vacant lot on border of town. Six eggs, incubation begun. The ground color varies from drab to fawn color, and the markings consist of spots and cloudings of burnt umber and sepia; dispersed over the surface, but heaviest at the larger ends: .91 x .64; .89 x .64; .88 x .64; .84 x .60; .87 x .61; .84 x .64.

Set XVII. June 2, 1888. Austin, Ill. Nest of grass, in a depression in the ground. Six eggs, incubation slight. The ground color varies from grayish to fawn, and the markings consist of spots of Vandyke brown, sepia and olive-gray, most of them being at the larger ends: .87 x .62; .88 x .63; .86 x .61; .85 x .61; .88 x .63; .84 x .59.

Set XVIII. June 15, 1888. Austin, Ill. Nest of grass, on ground, in a clump of weeds. Seven eggs, incubation commenced. Drab-gray, very heavily spotted and blotched (and with a few veins also) with sepia and burnt umber: .84 x .61; .88 x .61; .83 x .61; .86 x .62; .86 x .61; .86 x .63; .86 x .61.

Set XIX. June 3, 1888. Austin, Ill. Nest of dried grass, in a tussock of grass. Six eggs, incubation advanced. The ground color is bluish-gray, but this is so closely spotted and clouded with burnt umber that it is almost hidden by the latter color. Near the larger ends the markings are heavier: .90 x .64; .87 x .63; .86 x .64; .87 x .65; .85 x .64; .78 x .61.

Set XX. May 20, 1888. Austin, Ill. Nest of dried grass, in a wagon rut on prairie, south of the town. Six eggs, incubation slight.

Bluish-gray, heavily spotted and clouded, especially at the larger ends, with burnt umber: .85 x .62; .85 x .61; .83 x .61; .88 x .61; .86 x .61.

A peculiarity of the markings of the eggs of this species is that they are not sharply defined at the edges. They have a blurred appearance—something like a spot of water color that has been wet and has run. *J. P. N.*

Brown Creeper.

It is late in the winter and old Boreas is rattling the bare branches and whirling the snow with unwonted savageness, for he is venting his spite in advance for the defeat he is soon to suffer. In yonder moaning bit of pine woods has gathered a little company of birds, widely diverse in their mode of life, but called together by the welcome shelter that the sturdy pines extend to them. Here may be seen the hardy Crossbills and Siskins braving even the howling blast to obtain their favorite pine cones; the noisy Blue Jay for once awed into silence uttering but a deprecatory squeak at your intrusion and skulking a little further into the forest. The staid and sober Nuthatch can be seen and heard as he searches for dormant insects, accompanied by the ubiquitous Chickadee whose varied and cheerful notes make him doubly interesting. But last and least, in size that is, far up on the trunk of that old tree a timid, little peeping note can be heard, and looking up you behold a little Creeper moving about in an apologetic manner, as if aware that he intrudes on the rather limited larder of the Nuthatches and Chickadees.

But as the days slip by Boreas becomes less and less obtrusive, and on awakening some morning you find that spring has at last verified the prediction of her heralds, the Robins and Bluebirds. The Redpolls and Snow Bunting have followed their vanquished lord to the frozen regions of the north, and the zealous student of nature leaves even the bottomless mud of the country roads in order to greet his feathered friends. After a tour of the fields and byways he finds himself once again among the pines. The Creepers have acquired new confidence by increase of numbers, and now take their well-known spiral route about the trees with a sprightly and joyous air that is in marked contrast with his conduct of a few weeks before. He has now a song which he utters while in motion; it begins with a clear whistle followed after a slight pause by an

ascending warble of two notes, the last with a guttural ending; then follows another whistle like the first, ending with two whistles, the first the higher. The whole is uttered very quickly in a jerky manner, the time varying with every note.

In the first part of April every orchard and shade tree contains its quota of these birds, and every opportunity is given to the most casual observer for watching their habits. They display great dexterity in keeping out of sight always without appearing to be at any pains to avoid you. At first he alights about three feet from the ground on some old apple tree, and ascending in a spiral direction picks off the insects which he meets, jumping rapidly backwards down the trunk to research any spot that he has not looked over thoroughly, ever and anon springing into the air to seize a fly. On gaining the top he flies hurriedly to the foot of the next. In this manner he quickly goes through an orchard doing almost incalculable good in destroying its yet undeveloped pests. At this time of year in addition to the song described above he sometimes utters another entirely different. This begins with three notes of the same pitch, followed by one lower which is in turn followed by one lower still ended by three quick notes starting low and ending at the pitch of the first. For about two weeks they are very abundant, but at the end of that period they disappear from the haunts of man and must again be sought in the pinery. Here a few pairs carry on their love making, chasing and flying around a tree, hopping backwards and forwards, the male stopping every once in a while to utter his love song. This begins with three notes followed by two lower; it ends with a rising series of three notes, beginning low. Thus it resembles the song, or a song rather, of the Black-throated Green Warbler, except that the three last notes instead of being distinct are elided, while a slight difference can readily be distinguished in the first part of the song. I have never succeeded in finding the nest so I can give no description of the eggs.

Stewart E. White.

Grand Rapids, Kent Co., Mich.

Some Curious Sets of Kingbird's Eggs.

In glancing over a large series of eggs of any species one cannot fail to notice some odd and abnormal ones. And such is the case with the series of eggs of the Kingbird (*Tyrannus*

tyrannus) now before me, and common as they are, the following sets are so very peculiar that they seem to be worthy of mention.

July 17, 1888. Taunton, Mass. Two eggs, fresh. Ground color and markings normal, but their sizes are extraordinary, one of them measuring 1.12 x .69, and the other .77 x .57. Taking .95 x .68 as the average size of the eggs of this bird it will be seen what a very odd pair these are.

June 17, 1885. Smithborough, Ill. Three eggs, fresh. Light creamy white, marked with lilac-gray and heliotrope-purple almost entirely, there being only two or three small and indistinct spots of the chestnut which is typical of the normal Kingbird's egg: .89 x .67; .90 x .67; .93 x .68. No one could recognize these for eggs of this bird.

June 6, 1886. Rozette, Illinois. These must unquestionably belong to *T. tyrannus* for no other *Tyrannus* is found in Illinois, but they exactly resemble typical eggs of the Gray Kingbird, (*Tyrannus dominicensis*,) having the peculiar deep cream or pinkish-buff ground color characteristic of that bird's eggs: .98 x .74; .98 x .73; .96 x .73; .95 x .73.

The smallest sized sets measure .81 x .65; .81 x .65; .82 x .66; and the largest sets .96 x .79; .94 x .78; .94 x .78 (extremely broad) and 1.06 x .77; 1.01 x .76; .98 x .74. J. P. N.

The Carrion Crow at Plymouth, Mass.

A Black Vulture was seen around the house of Daniel Hinchlief, about half a mile from the centre of the village and *Plymouth Rock*, on July 2d and 3d. Mr. H. had thrown out some fish heads and refuse. The Vulture came to feed, bringing a single Crow with it. It was so very tame that Mr. H., who was hay-ing in the field near by, could almost hit it with a pitchfork. His grandson, who was spending the Fourth, thinking it to be an Eagle shot it on the morning of the fifth and brought it to me to have it preserved and identified. I exchanged other specimens for it, and at once shipped it to your office. There was one seen here about eight years ago on the farm of Thomas Jackson.

W. C. Hathaway.

[The Vulture, A.O.U. No. 326, was received in good order and mounted; it was found to be a ♀, and from its condition we don't think that it got its share of the fish heads.—W.]

Stray Notes.

In Foote's Semi-annual, Mr. Pennock, commenting on my statement that the Brown-headed Nuthatch prefers to build near water, suggests that in my locality suitable nesting sites are found more frequently in such places than on dry upland. This is true; the low grounds of one creek furnish enough dead trees and stumps for all the hole-building birds in the county to use, and then there would still be plenty left for visitors from foreign parts. The Carolina Chickadee is impartial in his choice of a dead stub, and doesn't seem to care whether it is highland or lowland, wet or dry. I still think, however, that the Nuthatch prefers to be near a small stream and not to take up his dwelling in a fence-post on a hill, but I am not certain, except as to one point, and that is that if he finds a suitable stub standing in water, the water is no sort of objection to his occupying the same. I am obliged to Mr. Pennock, though, for his comment, as, although it is a very obvious fact that 75 per cent. or more of the dead trees and stumps in this locality would be in or near water, I had entirely overlooked the fact when writing as to the Nuthatch's preference in the matter.

With regard to data blanks, it seems to be that instead of there being a blank for "*Identification*," said blank would be better filled by "*How identified*." In filling up datas I use three terms to fill this space, viz., "Bird on nest," "Bird seen building," and "Nest, eggs and situation." A fourth term sometimes comes in handy, viz., "Bird seen," which signifies that the bird came around while I was taking the nest, and showed plainly the nest belonged to her. The first two terms imply positive identification, the third will suffice in this locality to identify Pine Warbler, Brown-headed Nuthatch, Chat, both species of Tit, Crested Flycatcher, Wood Pewee, Acadian Flycatcher, Kingbird, Wood Thrush, Catbird, Thrasher, Mocker, Louisiana Water Thrush, Field Sparrow, Cardinal, both Indigos, Summer Tanager, and in fact most species of birds I am well acquainted with except Vireos and Hawks, where it is usually necessary to see the birds. I have never found it necessary to shoot a bird to identify nest and eggs; if I couldn't make sure one day the next would usually give me the opportunity to get a good look at the bird.

In the March O. & O., Mr. White has an article on the terms used to denote the relative abundance of birds, and I wish to suggest

another difficulty in the way of representing the matter correctly, and that is that birds which are "solitary" in the breeding season are "social" in winter; while the Sparrows and Juncos are not gregarious in the same sense as Waxwings and Goldfinches, yet instead of finding the Song Sparrow here in pairs or family squads, one usually finds them in flocks of twenty-five to one hundred in the bushes if one finds any at all; the same applies also to our other winter sparrows, viz., Field, Swamp, Fox, Vesper, and White-throated and also the Junco; the Savannah Sparrow on the other hand is usually solitary or in twos or threes. I must confess that the matter completely beats me except when I find a species present in large numbers everywhere and then he goes down as "Abundant," if in fewer numbers but still well distributed, or if present in large numbers in certain situations only, I say "Common," but if I don't feel justified in calling him common, then I put down what seems to fit in best, but anybody else would probably get a different idea from what I intended to convey. C. S. Brimley.

Raleigh, N.C.

Notes from Dartmouth, N.S.

Yesterday I found nest and eggs of Chipping Sparrow built on spruce tree, about four feet from ground.

Nest of Tree Sparrow with two eggs, built on low spruce tree, about two feet from ground.

Nest of Black-throated Green Warbler; three eggs, on little spruce tree, about four feet from ground.

Nest of Junco, with four eggs, on the ground underneath bank.

On June 16th. I was out this afternoon with friend Eagan and took the following nests: Tree Sparrow, three eggs, built on low spruce tree, ♀ secured; Purple Linnet, three eggs, built on little spruce tree, near the top, about ten feet from ground, ♀ secured; Black-throated Green Warbler, three eggs, built on low spruce trees about three feet from ground, ♀ secured; Redstart, four eggs, nest in fork of beech tree, about ten feet from the ground, ♀ on nest and secured; Sandpiper, took nest of four young ones.

All the above with other nests mentioned in my last were taken within a quarter of a mile of my house. H. Austen.

A Death Struggle.

Following is a story told by a man known here as Polecat Rube, a professional trapper, skunks being his favorite game, hence the name. He is without education but a great respecter of science, rarely referring to bird or animal without the scientific. Here it is as told by himself:

It war on er mighty nice mornin in April wen I tuck Betsy Jane (his seventy-five cent spy glass) an santered down ter the Lake ter see what war goin on. I war takin in things ginerally wen I see sunthun settin on er ole dead tree. I tuck er fine bead on him with Betsy an thar sot er Ball-faced Eagle (*Eplurebus Unum*) big as a barl (barrel). He was combin out his feathers with his long crooked snout, an purty soon he coekt one eye down at the ground an begin ter smile, an thar come er Yaller Bullecat (*Fillerkerdec*) sneakin threw the brush, and I could tel jist the way he snuck, he thort he war mighty slick, but he haddent kotedched on ter ole Plure settin up thar smilin at him. The closer he snuck ter that are ole dead tree the more ole Plure would grin, an purty soon old Plure let go all hoalts an down he come slam bang onto Fill's back, like er Pewee onto er June bug. Jist as soon as Fill begin ter feel old Plure's toenails walking inter his back he flopped upside down, an the racket sot in, feathers an har flying every way. Fill squallin an Plure screamin, an boys if you'd'd er bin thar you'd er thot the devil an all his injins war givin er open ar (air) concert. Well I thart I'de drap down that are way and see who wor on top, and how tha war gettin on ginerally. An I drapt, an drapt, an drapt, til I war in twenty feet uv um an dern the thing could I see uv um for har and feathers flying, all I could do war ter stan thar an take in the music, an purty soon the music begin ter weaken an weaken, til it war like the little eend uv nothin whittled down to er pint, an all war stil as er new grave yard. I had ter wait jist twenty minits fur the har an feathers ter settle down so I culd see ter git in an then I gathered up er two year-ole club an waided in an every step war up ter my knees in har and feathers, all I could find uv Fill war two inches uv his tail, one ear, an one paw, an all war left uv Plure war three feathers uv his tail held together by a little piece uv skin, one claw an the upper part uv his snout. Me and the ole woman gathered up er nuff har an feathers thar ter fil er big feather tick an four pillars.

Now boys don't yer forgit it I allus nock the packin out ov the man that calls me er liar. (We all believed it of course.)

Mossback.

Doings of a Tenderfoot.

Well, here I am in the "wild and woolly west," not so wild nor so woolly as it might be either; eastern people don't do this section justice in this respect. The days of Indians and bad cowboys are passed, and replaced by style and refinement like the rest of our great country.

And the birds — they are a great attraction for the tenderfoot collector, for such I must be called. All strangers are tenderfeet until they can talk understandingly of "foot-hills," "cañons," "timber line," and one thing and another, and I haven't got that far along yet. About a week ago I had a half day to myself, and with a few shells of No. 12 started out to see what I could find. The nearest grove of trees was along a creek bottom, so I made for these, but with a rather uncertain step for fear of tresspassing on the dignity of some native, and aside from that I did not know where the city limits were, and whether or not the people would object to my collecting a few birds. My fears were soon set aside, however, by a gardener who gave me some encouraging words, and I felt that I could better enjoy my little tramp.

The first bird I dared to shoot at was a Lewis' Woodpecker that I found perched on a fence post. Just before I was ready to shoot he started off with his Blackbird flight, but ran into the charge of shot I sent ahead of him and gave up his life for science. It was an elegant male, and the first I had ever seen alive, and was recognized easily from quite a distance.

When I reached the creek I found birds plenty — Spotted Sandpipers, Lark Finches, Brewer's Grackle, etc., but I decided I did not want any of these so went further on and flushed a Green-tailed Towhee which got safely across the creek. Just as I entered the first bunch of trees I saw four Louisiana Tanagers, perfect beauties, red and gold, but despite my best efforts to get in range I failed, for they were very wild, so I brought down a pair of Bullock's Oriole instead. The next victim was a fine Macgillivary's Warbler from a clump of briars. I did not notice a very large variety of Warblers about. A few Ten-

nessee, Yellow, Myrtle and an occasional Audubon's were about all, but Mourning Doves and Brewer's Grackle were very abundant and breeding. A second Green-tailed Towhee led me a long chase but was finally secured as were a nice pair of Arctic Towhees later on.

Black-headed Grosbeaks were quite plentiful so I selected a nice plumaged male for a specimen; most every brush pile had its Bewick's Wren, if not one of the Towhee sure. A great many common eastern birds were observed: Red-headed Woodpeckers, Catbirds, Brown Thrush, Olive-backed Thrush, etc. On the way back I caught another Green-tailed Towhee just as it was diving into a bunch of willow, and also saw another Lewis' Woodpecker.

A few days before this a brother "Taxy," a graduate of Wards, and myself made an attempt to climb Pike's Peak late in the afternoon. We had to give this up as a bad job, although we passed the "timber line" and were among the snow. That was the worst hill I ever tackled. I had my .22 cal. Colt rifle along, and we secured quite a few desirable birds: some Long-crested Jays, Magpies, a pair of Water Ouzels, and Red-shafted Flickers, and for my friend some of the little dark-colored chipmunks, quite different from the eastern form. We also saw some Clark's Nutcrackers and Piñon Jays and three stately Golden Eagles, as well as several troupes of Plain Tits and Mountain Chickadee and small flocks of Red-backed Junco. All these new birds were of course very interesting to us and we probably spent as much time watching them as we did in coaxing each other up hill.

Geo. G. Cantwell.

Colorado Springs, Col.

A Series of Eggs of Harris' Hawk.

The eggs of Harris' Hawk (*Parabuteo unicinctus harrisi*) were formerly quite rare, but lately a large number of sets have been taken by collectors. They do not exhibit much variation.

Set I. May 10, 1886. Corpus Christi, Texas. Nest in live oak. Three eggs, fresh. White, with a yellowish tinge, unmarked: 2.19 x 1.61; 2.13 x 1.63; 2.14 x 1.58.

Set II. April 25, 1886. Cameron County, Texas. Nest in small tree. Made of sticks and rubbish, lined with a little soft material. Three eggs, fresh. White, with a yellowish tinge. Two of the eggs are unmarked, but the third has a few faint spots of cinnamon

near the smaller end: 2.00 x 1.65; 2.06 x 1.65; 2.13 x 1.69.

Set III. May 3, 1886. Cameron County, Texas. Nest of sticks, roots and other rubbish, in small tree. Three eggs, fresh. White, with a yellowish tinge. Two of the eggs are faintly marked with lavender, but the third is distinctly spotted at the larger end with cinnamon: 2.14 x 1.65; 1.94 x 1.61; 1.99 x 1.57.

Set IV. May 2, 1889. Camargo, Mexico. Nest of small sticks, grass, etc., in whitewood tree, in crotch, twelve feet from the ground. Three eggs, incubation slight. White, with a yellowish tinge, very faintly spotted with pearl gray. The markings are so light that they are not perceptible at a short distance from the eggs: 2.16 x 1.60; 2.11 x 1.69; 2.11 x 1.66.

Set V. May 10, 1886. Cameron County, Texas. Nest of sticks, grass, etc., and placed in live oak tree twenty feet up. Three eggs, incubation begun. White, two of them very faintly spotted with pearl gray, but the third has a number of small spots of cinnamon at the smaller end: 2.14 x 1.69; 2.11 x 1.58; 2.13 x 1.65.

Set VI. May 25, 1886. Cameron County, Texas. Nest in oak tree. Made of sticks, with a lining of grass. Two eggs, fresh. White, unmarked: 2.08 x 1.65; 2.19 x 1.71.

Set VII. March 15, 1889. Camargo, Mexico. Nest of coarse twigs, lined with dry grass, etc. In mesquite tree, fifteen feet from the ground. Three eggs, fresh. White, with a yellowish tinge, very faintly spotted with pearl gray. One of the eggs has a few spots of cinnamon near the larger end: 2.04 x 1.66; 2.12 x 1.65; 2.17 x 1.65.

Sets I, II, III and VI are described by me in Davie's *Nests and Eggs*, 1889, page 172.

J. P. N.

Nest and Eggs of the Ruby-Crowned Kinglet.

On the second of June last year, I wrote concerning the taking of the nest of Golden-crested Kinglet with nine eggs, also having discovered nest of Ruby-crowned Kinglet but as explained at that time, the latter, after having completed the nest, deserted it. I remarked in the end of letter that I expected to take one yet, and I now have pleasure in advising that the fact has been accomplished, and the nest and eggs are before me while writing.

On the ninth of June I started out to hunt for a Hummingbird's nest that had been seen close to my house, and I soon located the bird and watched her movements from about 9 A.M. until 12 M., but I did not succeed in discovering the nest. She was too quick on the wing, and the eye could not follow her flight. However, while watching her a pair of Ruby-crowned Kinglets came along and my attention was given to them. After hopping around overhead for a little while they flew to some black spruces. I immediately started after them and in a short time had them in view again, then I sat down again, lighted a cigar, and took things easy, for I knew the nest could not be far away.

In a little while the ♀ disappeared in a thick clump of tall, young, black spruces; I followed up and looked and climbed every tree in the vicinity, but it was no use. Meantime, the ♂ was flitting from the top of one tree to another, uttering that queer sort of a whistle that I do not know how to describe, except that it is unlike any other bird's note that I know of, and easily distinguished from all others when once heard and known.

In a little while the ♀ appeared again, and then I made up my mind that that nest must be found, so to work I went, and at 2.40 P.M. I found the nest, but it was only accomplished by climbing the tree, as the nest could not be seen from the ground, it being built near the top of a thick, black spruce tree, and this time it was built *on the limb*, and not underneath as described by me last year. It was not on the branches of the limb but placed on the *bare* limb about one foot out from body of the tree, and about fifteen feet from the ground when I saw contents of nest, eleven eggs. I got down the tree and watched the old birds. After I had seen the ♀ go on the nest twice I shot her, and then shot the ♂, then taking the nest left for home. On the way back I found the nest of a Wood Pewee with four eggs, which I took to-day, and shot ♀ bird. This nest is made entirely of hen feathers, and is one of the prettiest I have ever seen.

I might say that before shooting the Kinglets and after having discovered the nest I watched the birds for over an hour, as I wished their identity to be beyond dispute. The nest is built on the outside with moss and lined with feathers. It measures 3 inches across the top on outside, and 1½ inches inside, and 1¾ inches deep inside. I have blown the eggs which were badly incubated, but have

made a fair job of it, and am satisfied that they are good enough for any collector.

On the 14th inst., I found the nest of another Golden-crowned Kinglet, but unfortunately it was full of young. This time the nest was way up in the tiptop of a tall, straight black spruce, and built underneath the limb and clinging to the twigs, just like the two nests I discovered last year. This makes in all four nests of the Kinglets I have taken, and in every instance they have been built on black spruces, three of them placed underneath the limb, one on the limb.

H. Austen.

Halifax, N.S.

Bird Notes of Northern New Jersey.

Tent caterpillars are very numerous, even more than last spring; so are the Cuckoos, they arrived as soon as the buds began to open. They are well occupied tearing open the tent webs, and consuming the caterpillars. Previous years the Cuckoo was not a common bird here and seldom appeared so early.

I have also noticed the Baltimore Oriole eating the tent caterpillars, but the Orioles are not commoner than usual.

While speaking of the Cuckoo, the black-billed has often been known to dash against a building and kill itself. This happens when pursued by other birds and has come under the notice of many ornithologists, but I have noticed another trait this spring, it seems like defective vision. I have a lot of chicken yards fenced with 2 in. mesh No. 18 wire which is quite perceptible to birds. Some fly through it and many over. The Swallows in their rapid flight glide over it or rest on it. A few birds strike it. I have during the last six weeks picked up two Thrushes and one Cedar-bird, but this spring several Cuckoos have dashed against it, with no enemy to urge them on. They were not killed and after a halt pursued their course.

The Brown Thrush noticed in a former number of the O. & O. taking its nightly lodgings on a rear stoop of a thickly populated part of New York City, 36th street near Fifth avenue, returned again last fall and remained as before, two or three weeks, and one evening brought a companion. Every morning it took its breakfast of worms on the little grass plot and disappeared till evening. Warblers on their migrations have been very scarce this spring, two years ago they were extremely numerous, and last year fairly so, but this year a very few were seen to come this way.

Henry Hales.

On the Fort Bassinger Trail.

In the gray of early dawn I started from the little frontier settlement in South Florida where had I been staying, to look up the Ground Owls on the Kissimmee Prairie once more. It was a long day's tramp that I had before me, and as I could only steal one day from other occupations I put my best foot foremost and when the trail was plain made capital time.

Crossing the Hatchoclass just beyond the location of old Fort Ivan a flock of Sandhill Cranes ran up, the first living thing I had seen, except one rabbit. But as daylight began to show the woods livened up a bit and while boiling my morning coffee, I was much amused by the gambols of a family of Pole Cats. When not, let us say agitated, these are very beautiful creatures, and in blessed Florida the effects of the agitation does not last long.

Just after leaving my fire there was a rush and scramble in the scrub about a rod to the right and five beautiful deer bounded away. Before I got to the prairie I disturbed two more. Noted also Meadow Larks, Red-cockaded Woodpecker, Yellow-winged Sparrow, Ground Dove, Flicker, Brown-headed Nuthatch, Red-poll Warbler, Bluebird, Carolina Dove, Towhee, Cardinal, Crow, Red-winged Blackbird and Quail. Saw tracks of Turkey, Otter, Raccoon, and Fox Squirrel.

Then came a long tramp over the open prairie. Though only the 24th of March, the day was intensely hot and the season had been so dry that not a drop of water was to be had. But right out in the open I found a large flock of Quail who ran before me down the dusty track for probably quarter of a mile. Larks, Sand-hill Cranes and Caracara Eagles were the only other birds seen, till suddenly out of the ground popped up a little Owl. For a minute or two he stood winking and bowing at me and then took flight, dropping again about a hundred yards off. I carefully noted the spot where he settled and then made my observations on his home. I found that he had made a small clearing in the grass and weeds about three feet across and begun his burrow on the east side of it. A large mound of earth and sand—about a peck and a half—was loosely piled up and the hole extended straight into the ground about two feet. I followed him up and after the usual severe race shot him. During the afternoon I visited two old towns but found no inhabitants, though signs of recent "house cleaning" were

plainly to be discerned. Quite late in the day I found another town of three holes and while digging in one that looked quite promising an owl came from across the prairie and flew almost into my face. As she dodged off I caught my gun and brought her down. She had her mouth full of dry grass and was evidently coming to the very hole I was digging at, for on completing my excavations I found quite a well-formed nest in the cavity at the end of the burrow composed of the same kind of grass that she held in her mouth. The other two holes were in about the same stage of completion and their tenants were in all probability watching me despoil their homes from some point of concealment not far away.

My inference is that the time to look for the eggs of this species on the Kissimmee Prairie is during the first half of April. Once find what sort of ground the Owls like and plenty of burrows can be discovered. And no one can possibly confound them with the holes of Skunks and Gophers. The habitations differ almost as much as the inhabitants.

Walter Hoxie.

The Rough-Winged Swallow.

The Rough-winged Swallow is imputed as rare in all places of its occurrence. However, I believe it is of more general occurrence in almost all parts than is thought, it being too frequently overlooked or confounded with its very near relative, the Bank Swallow.

Mr. J. L. Davison does not mention this bird in his "List of Birds of Niagara County, N. Y.," while here in the adjoining county (Orleans) it is a summer resident that may be depended upon, and several sets of its eggs are taken each season. This bird is so like the Bank Swallow in every particular that the only safe means of identification is the bird in the hand. However, it may be identified when flying towards one by an observation of its throat and breast. The throat of the Bank Swallow is white, and it has a black pectoral band, while the Rough-winged species has a black or brownish throat and no such band on the breast. The bird in the hand will reveal the peculiarities from which it takes its name.

Although the sand bank, the home of the Bank Swallow, is generally ascribed as the nesting place of the Rough-winged, in this locality at least, such is not the case as often as otherwise. Here, the favorite nesting place of *Serripennis* seems to be in the crevices of

the stone work which forms the side of the Erie Canal or the abutments to its bridges, or in crevices of stone work in the vicinity of any water, and I think that if those who are seeking for this bird will look carefully about such places in their locality they will find it not uncommon there.

The nest is loosely composed of straw (almost entirely), with sometimes the addition of some feathers. The eggs are pure white, and I find that they differ from those of the Bank Swallow in at least two particulars. First, they are not so much pointed and may be a trifle larger; and second, the number of them is generally greater, the complete set generally consisting of seven or eight eggs, which are deposited the last week in May.

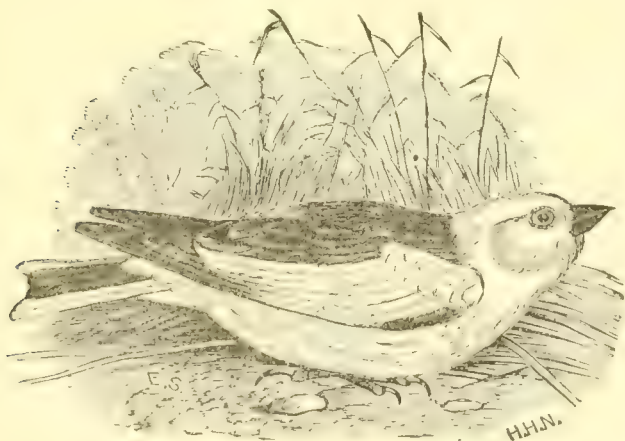
The Rough-winged Swallow does not arrive from the South until the first week in May, and departs unnoticed in the fall.

Medina, N. Y.

Neil F. Posson.

Was the Change in the Common Names Popular?

Through the courtesy of Messrs. Estes and Lauriat, publishers of Coues' "Key to North American Birds," to-day the most popular work on American ornithology, we are enabled to present to our readers good illustrations of the four species that we have asked for a vote on, a popularity of the change in their common names by the A.O.U.



SNOW BUNTING. FULL SUMMER PLUMAGE.

THE VOTE OF S. R. I. TRAVELS THE ENTIRE COAST AND THE ECHO IS AMEN.

Editor of O. & O.:

I desire to say that when I had finished reading the vote cast by S. R. I. in the May number in regard to the changing of the names of some of the birds, something like a smile stole over my face and there in the gath-

ering twilight I softly whispered "Amen," and closing the magazine I had just been reading went quietly into the house. For several good reasons I wish to cast my vote in favor of the old names.

F. G. P.—Archer, Fla.



GRASS FINCH. BAY-WINGED BUNTING.

CAN AMERICAN ORNITHOLOGISTS BE DRIVEN LIKE SHEEP?

Editor of O. & O.:

You seem to be in earnest about getting a full vote on the question of changing common names of birds. Put me down two for the A.O.U. against Mr. A. E. K. and wife. The check-list will be good enough for my boy as he will not have to unlearn the old names. In the Auk for July, 1885, page 316, Mr. Ernest E. Thompson, writing upon the subject of revision of scientific and popular names by "the committee" says: "There is no doubt that scientific names are entirely in the hands of scientists, but it seems to be overlooked that popular names are just as completely in the hands of the people." Mr. Thompson writing this in 1890 would not put the latter part of the statement *quite* so strong. On reading his article I said "them's my sentiments" and am now barely over on the A.O.U. side. There is no use "bucking" against such a team as the Big Five, for whether the changes are made "on their own responsibility" or not they will stand.

J. T. P.—Tenn.

FAVORS THREE OLD AND ONE NEW.

Editor of O. & O.:

We are always willing to adopt anything that is an improvement, be it new or old. We think three of the new names are anything but an improvement, but the fourth—Vesper Sparrow—to us is decidedly more appropriate. Lake Huron has a thousand and one Bays but

none are the color, size or shape of the Wing, of the Bay Wing Bunting. Vesper Sparrow is not new. It is mentioned by Studer in 1878. You may put us down with both feet on the old name. [This is the heaviest vote against Bay Wing Bunting.—Ed.]

We would like a photograph of the man that coined "Dickeissel," as we think it would be an attractive feature for the Chicago Fair in '93.

Mossback.—Puckerbrush, Paulding Co., Ohio.



YELLOW-WINGED SPARROW.

A COMMUNICATION TO BE CONSIDERED.

Editor of O. & O.:

It seems to me that the changes in names made by the "Union" are all good, with perhaps one exception. It has been objected to the name "Dickeissel" that it is outlandish. The same objection might be made to "Flicker"; both these words are onomatopoeic; and, if Flicker is better than Golden-winged Woodpecker, then Dickeissel is to be preferred to Black-throated Bunting. The same may be said of the other terms adopted by the A.O.U. They are all improvements on the old names, it appears to me, and ought to remain. They are new and like all new words are not as pleasing as those to which we are accustomed.

There is one change which perhaps it would have been best not to make: *Buteo* is rendered by Hawk instead of Buzzard. *Falco* is translated Falcon; *Accipiter* means Hawk, and why should not *Buteo* be Buzzard as Professor Coues has given it? They give us *Buteo buteo*, European Buzzard. Why then should we not have *Buteo borealis* rendered Red-tailed Buzzard?

There are some changes in names that should be made because they are written incorrectly according to Canon VIII of the Union. Canon VIII says: "Proper names of species and of sub-species or 'varieties' are single words, simple or compound, preferably adjectival or genetical, or taken as such, when practicable agreeing in gender and number, with any generic name with which they are associated in binomial or trinomial nomenclature, and written with a small initial letter."

In spite of this Canon VIII, we have *Coccothraustes vespertina*. Is it not practicable that the specific adjective here agree with *Coccothraustes* a masculine noun? *Coccothraustes* is a Greek masculine noun, and by what authority does the Latinized word become feminine? Let the Union correct this solecism and give us *Coccothraustes vespertinus*. There are other solecisms that could be mentioned but too much of your valuable space has already been taken up. W. C. A.—Ala.



BLACK-THROATED BUNTING.

HOW WOULD IT DO TO DROP NAMES AND USE NUMBERS?

Editor of O. & O.:

We both of us prefer the A. O. U. names to the old ones, the former are as a rule shorter and don't take up so much room on the tags.

H. H. & C. S. B.—N.C.

"The changing of a common, well-known name of a bird has nothing whatever to do with the Scientific Nomenclature or arrangement, and is a matter to be governed by a general public opinion. Such an opinion can only be obtained by hearing from all sections of the country."

My Large Set of *Buteo lineatus*.

After breakfast I put my traps in the buggy, hitched up the horse and started for a drive up the river road. The road for three or four miles is on the bank of the Hudson river, and for a pleasant drive on a summer's day it is unequalled.

The morning I mention was a cool, wet morning the first week in May, 1890. It had rained the previous evening and the ferns and wild flowers were coming forth and sparkling in the morning sunshine.

Along the road I noticed several new arrivals: Warblers, Flycatchers, and Catbirds, and the Oriole's whistle came from the trees.

I drove along for about seven miles, and then noticed a piece of woods about three hundred yards from the road. It looked tempting, so I pulled in close to the fence, jumped out, tied and blanketed the horse. I then changed my shoes for a pair of rubber boots, took my climbers in one hand and my collecting box in the other and started. I reached the woods and found the ground in some places covered with water, and in some places there was about fourteen inches of nice, rich mud. Regardless of mud or water I started to examine some of the dead stubs the swamp contained. The first find was a pair of Chickadees building a nest in a cavity in a rotten stump four feet from the ground. The next find was a Crow's nest which contained four young and one egg.

A little further on I came across a Bluebird's nest in a dead stump in the midst of the swamp, only three and a half feet from the ground. It contained two fresh eggs. I left these, and started along a fallen log when my attention was attracted to a large Hawk coming towards me. He settled in a tree about fifty yards ahead of me, and I identified him as *Buteo lineatus*, and made up my mind there was a nest close by. I immediately began to search for it and soon spied it in an ash tree forty feet up. I sat down and buckled on my climbers and started up, reached the nest and looked over. It contained *five* eggs. One of them was slightly dented. I rolled them up in cotton and put them in a small bag, brought them down, put them in my collecting box and started for the wagon.

Before I reached the place where I had left the horse it began to rain so I put my climbers, collecting box, etc., in the wagon and started for home. When I reached home I cut away the fractured part of the broken egg and

removed the young bird. The egg would have hatched in a day or two. The incubation was not the same in all the eggs, but they were all pretty well advanced, and I was puzzled to know how I was going to remove the embryos. I was soon struck with an idea. I took the eggs and drilled a hole in each of them and then arranged the spout of a common squirt can on a three quarter-inch garden hose, coupled the hose on a faucet and turned on the water. In this way I forced out all the blood and other matter except the young bird itself. Then I filled the eggs up with water and let them stand three days. I thought I would put them on an ant hill so I began to shake out the water when lo! I shook out young bird and all. They smelt pretty bad, but I remedied this by filling them with lime water and letting them stand for twenty-four hours.

H. C. Campbell.

Lansingburgh, N. Y.

Records for Massachusetts.

THE CURLEW SANDPIPER AT CHATHAM, MASS.—A ♂ specimen of the Curlew Sandpiper, A. O. U. No. 244, was taken at Chatham, Mass., August 26, 1889. It was nearly in full plumage. It is now in the collection of Gordon Plummer, Brookline, Mass.—[*Ed.*]

THE ROYAL TERN AT CHATHAM, MASS.—A ♀ specimen of the Royal Tern A. O. U., No. 65, was taken at Chatham, Mass., July 29, 1889. At this writing it is at F. B. Webster's Naturalists' Supply Depot.—[*Ed.*]

THE KING EIDER AT MUSKEGET, MASS.—A young ♂ King Eider, A. O. U. No. 162, was killed at Muskeget Island, April 5, 1890.

Gordon Plummer records this specimen as being killed by his party, and is now in his collection.

[Mr. Plummer has a fine collection of birds, the result of a number of years' collecting. In addition to skins, he has paid particular attention to procuring mounted specimens of the game birds. They are carefully selected with regard to plumage, and represent the *best* work of our eastern taxidermists. Mr. Plummer is a thorough sportsman and knows when a bird is properly mounted.—*Ed.*]

THE PROTHONOTARY WARBLER AT NEWTON, MASS.—On Thursday, June 19, 1890, I noted a Prothonotary Warbler at Newton, Mass. On the 20th I brought him home.—[*F. H. Kennard.*]

ARLINGTON HEIGHTS. Yellow-breasted Chat. Arlington Heights. A specimen was taken June 6th.—[W. P. Hadley.

SOUTH FRAMINGHAM.—One of your circulars has the statement that you would like "particulars in taking rare specimens."

To-day's eggging was rewarded by a "find" of nest and four fresh eggs of the Golden-winged Warbler, (*Helminthophaga chrysoptera*), and it seems to me that the bird is uncommon enough, as a New England breeder, to make an interesting item.

The female was flushed from her nest and shot. The nest itself was placed at the base of a few alder shoots (upright between the stems), and at the edge of a low thicket of new growth oaks and maples in a very open spot. Outwardly the cup-shaped nest was loosely built with dead leaves and within of coarse grasses and grape-vine bark, with a lining of fine, dry grasses. The resemblance to the Yellow-throat's nest is complete.

The eggs are of the size of a Redstart's, white, with small dots of reddish and a few points of Vandyke brown, collected at the larger end, but not forming a distinct ring.

I have found two sets of eggs of *Guiraca ludoviciana*, one of *Turdus mustelinus*, and a nest of Black and White Creeper (to-day), with three young and an egg ready to hatch, which I saved in halves.

Have found an uncompleted nest of a Vireo which, from its small size, I think must be the Solitary (or 'blue-headed').

A set of five almost pure white Bluebird's eggs (fresh) was a curiosity secured a few days ago.—[F. E. Coombs.

WELLESLEY.—A young Black-billed Cuckoo (*Coccyzus erythrophthalmus*) killed itself to-day by flying against a window pane of my room after an lo moth which had just hatched out and had crawled up the window to expand its wings.—[Shelley W. Denton.

July 4.

Nesting of the Thick-billed Grebe.

In the February number of the O. & O. there is an article on the nesting of the Thick-billed Grebe by George G. Cantwell that does not agree exactly with my experience with that bird. There have been several articles advocating the theory that the eggs were hatched by the heat of the nest.

I have on three different occasions seen the Grebe on her nest, and once my friend raised his paddle to kill a bird on her nest, but I stopped him, and the bird seemed to slide off the nest and under the water. It scarcely made a ripple.

At another time I ran on a nest that was just hatching, and the Grebe ran away in the grass (the nest was on the edge of a large bog) and made a great fuss calling, etc.

The nests here are usually in the water, loosely made of moss, grass, roots and mud, and are about as large as a bushel basket, and completely saturated with water, which would prevent generating heat sufficient to hatch the eggs.

Cantwell says completed sets are covered. I never have noticed any difference in the covering as nearly all are covered, but the eggs can usually be seen through the covering. He also says he has stood on the edge of the marsh and could see three or four nests.

In a day's collecting in a boat I have taken ten nests and would probably travel five to seven miles. I do not think I ever found two nests nearer than twenty or thirty rods apart.

D. Hatch.

Oakfield, Wis.

Further Notes on the Nesting of the Ruby-Crowned Kinglet.

Yesterday I was to the woods all day hunting up above species. In knocking about I heard a ♂ getting off that peculiar note of his, and soon located the little chap; that done, I sat down, lit a cigar, and waited for something to turn up. In a little while the ♀ came along and by her actions I knew the nest was near, and full of young. When I considered I had the spot pretty well fixed I began to climb the trees and in one hour and ten minutes I had the nest. It was as I expected, full of young, and as near as I could make out the number was nine. The nest was the prettiest one I have yet found, being lined with Partridge feathers, and placed on the *straight limb*, about twenty-five feet from the ground, and about twenty inches out on the limb. This nest I intend to take, with the young, also the other one I have located, named in my last, and mount the whole business with the old birds.

H. Austen.

THE
ORNITHOLOGIST AND OÖLOGIST

A Monthly Magazine of

NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS,
THEIR NESTS AND EGGS,
and to the
INTERESTS OF NATURALISTS.

Under the Editorial Management of

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J. PARKER NORRIS,	Philadelphia, Pa.
FRANK A. BATES,	Boston, Mass.

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Brief Notes.

A pair of young Screech Owls, the first installment to our private menagerie, were in our possession barely twenty-four hours before the male "ate up his female mate."

On May 17, Wallace Homer found a nest of the American Crow containing eight eggs.

The publisher of the O. & O. was pleasantly remembered by receiving a graduation card from D. Frank Keller of the Reading, Pa., High school. We receive many tokens from our subscribers.

C. F. Newell has started for a collecting trip to the West Indies.

C. J. Maynard is writing a popular work on entomology.

Olver Davie writes that he expects to have fifty-four full page illustrations to his new work on taxidermy instead of fifty as advertised.

J. T. Park, Warner, Tenn., asks where can a copy of The History of Lewis and Clark's Expedition be obtained?

W. H. Foote's Semi-annual will soon be ready.

Our black snakes are undergoing the interesting process of shedding their skins. It took one about two hours to complete the operation. The old skin loosened about the head, and it crawled out, since it has been unusually lively. A few days since when leaving the office at night the last act was to let all four loose. On returning the next morning our office boy was found in a state of consternation. The snakes are not the mild creatures they were in cold weather. They will strike in a vicious manner.

A pair of young foxes that were recently sent in to us have become quite tame. They will allow the writer to handle them, and are very playful.

One of our correspondants writes that he notices the gingerly manner in which some express their opinion on the question of the change of the common names of our birds. No one should hesitate to freely express his opinion.

Raleigh, N. C. When snake meets snake and each snake proceeds to swallow the opposite snake, beginning with the rear anatomy, the result is a double back action, hoop snake. S. R.

O. A. Jenkins, one of the leading Boston furriers, is the most enthusiastic man in his line that we ever met. He makes a speciality of obtaining rare freaks. Being a near neighbor, whenever he gets anything fine he usually drops in with it. A few days since he had some extraordinary skins, a dozen skunk's, all of which were pale buff with a finely defined white V, so soft and beautiful that it was hard to realize what they were; two coon skins that were nearly black, and an otter of a delicate buff. A jacket and muff made of leopard skin a few days since attracted a great deal of attention to his windows.

George Morse, while driving through Hudson, Mass., on June 9, noticed a woodchuck crossing the road. It ran up a white oak tree about 12 inches in diameter, and located on the first limb about 15 feet from the ground. He was unable to reach it with his whip and resorted to stones, securing his game. We think that it is unusual for that animal to climb a tree.

Our readers must not be impatient on account of the delay in publishing articles. Remember that our space is limited and lists especially have to be well sandwiched.

The postman hands us a photograph of Geo. G. Cantwell and a Rocky Mountain lion. You make a good pair, accept our thanks.

We had a very pleasant call from W. O. Emerson, who is on his way to Paris. Mr. Emerson showed us a large series of sketches that he has made of interesting features in his locality on the Pacific Coast. He left with us a few choice sets of eggs taken by him personally on the Farallone Islands.

June 8th, a Redheaded Nuthatch was observed at Hyde Park, Mass.

A Yellow-throated Vireo is nesting on a Pine tree quite close to a window at the residence of C. M. Hammond, Hyde Park, Mass.

F. B. Webster's museum will be completed August 1.

J. M. Southwick, the well-known natural history dealer, is recuperating at Rangeley Lakes, Maine.

If there is a sudden termination of brief notes it will be the result of sporting glee of Harry Austen's pet bear that we expect daily at our museum.

Raleigh, N. C., June 7, 1890: Season up to date reasonably satisfactory. Among our most noteworthy takes are nine sets of Yellow-throated Warbler, seventeen of Pine Warbler, four of Prairie Warbler, one of Broad-winged Hawk, and one of Rough-winged Swallow as well as sets of common species. Last week we had two eggs brought to us which so far as we could make out were Black Rail. We took the first full plumaged ♂ Baltimore Oriole we had ever seen here this spring, our first female specimen of the Least Bittern, and also one Mountain Solitary Vireo, but nothing else out of the common.

H. H. and C. S. Brimley.

AUGUST, 1890.

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BOSTON, MASS., AUGUST, 1890.

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List of Birds Breeding in Marshall County, Ill.

No. 6. Carolina Grebe (*Podilymbus podiceps*). Rare. Eggs have been taken in this county, but I never took a set within the limits.

No. 120. Double-crested Cormorant (*Phalacrocorax dilophus*). Rare. Formerly several pairs nested in the heronry referred to in connection with the American Egret, but now none are known to nest within the limits of the county, although five miles to the north there is a tree having now six nests of this species in it. Since writing the above I have discovered quite a large lot of these birds nesting in the heronry referred to in connection with No. 194, and have taken many eggs.

No. 131. Hooded Merganser (*Lophodytes cucullatus*). Rare. I took one set of eleven of the eggs of this species, and the young are sometimes seen here.

No. 132. Mallard Duck (*Anas boschas*). Rare. Formerly a common breeder. One set of eggs taken in 1888 by a hunter of this town.

No. 139. Green-winged Teal (*Anas carolinensis*). Rare. Formerly, common breeder, and now a rare one. I have never taken the eggs of this species in the county but have seen the young often.

No. 140. Blue-winged Teal (*Anas discors*). Rare. The same remarks that apply to the above apply to this species *in toto*.

No. 144. Wood Duck (*Aix sponsa*). Common. A common summer resident nesting in the river bottoms of the Illinois river.

No. 148. Scaup Duck (*Aythya marila nearectica*). Rare. One set taken here three years ago by a hunter. I have never taken the eggs in the county, but have very often seen the downy young.

No. 150. Ring-billed Duck (*Aythya collaris*). Rare. I never saw a nest in the county, but

have frequently seen the young in nearly all stages of plumage.

No. 172. Canada Goose (*Branta canadensis*). Rare. One set of eggs of this bird was found here in this county in 1869 and the eggs taken home and hatched. The young did well until grown, when they left. A farmer named Verney had them.

No. 191. Least Bittern (*Botaurus exilis*). Very rare. Eggs of this species have been taken in this county, but not by the writer; although I have taken many eggs in the Snatchwine Swamp two miles north of the county line.

No. 194. Great Blue Heron (*Ardea herodias*). Common. Formerly there was a large heronry in this county composed of these birds, the White Egret, Double-crested Cormorants and the like. There is now situated on our south line of the county a large heronry composed entirely of this species, a small part of which extends north of the county line.

No. 196. White Egret (*Ardea egretta*). Rare. Formerly inhabited the above heronry and not now known to occur within the limits of the county; however, there is a large heronry of these birds now situated about twelve miles to the north of our north county line.

No. 201. Green Heron (*Ardea virescens*). Common. Formerly much more plentiful than now.

No. 214. Sora Rail (*Porzana carolina*). Common. I never took a set of the eggs of this bird in the county, but have seen over forty of the eggs that were taken in one day in the county by Mr. D. B. Burrows. I saw them the day they were taken.

No. 219. Florida Gallinule (*Gallinula galeata*). Common. A common summer resident here.

No. 221. American Coot (*Fulica americana*). Common. Plentiful in this county as a breeder.

No. 228. Woodcock (*Philohela minor*).

Common. One set of eggs taken in April, 1888, when there was plenty of snow on the ground.

No. 261. Bartram's Sandpiper (*Bartramia longicauda*). Common. Plentiful in the fields hereabouts.

No. 263. Spotted Sandpiper (*Actitis macularia*). Common. Plentiful along the Illinois river.

No. 273. Killdeer (*Egialitis vocifera*). Common. Nearly every pasture in the county has its pair of these birds, and they are common along the river also.

No. 289. Bob-white, Quail (*Colinus virginianus*). Common. These birds are increasing here every year on account of the close enforcement of the Game Laws.

No. 300. Ruffed Grouse (*Bonasa umbellus*). Common. I never took a nest in the county, but have seen eggs taken here, and have caught the young that were only a day or so old.

No. 305. Prairie Chicken (*Tympanuchus americanus*). Common. The same remarks that apply to the Quail apply to this bird here.

No. 310. Wild Turkey (*Meleagris gallopavo*). Rare. It is very doubtful if this bird now breeds in this county. Formerly they were a common breeder as is attested by all old settlers. The writer has never seen a nest or the young of this species within the county, but has killed the mature birds in this county within the last five years.

No. 316. Mourning Dove (*Zenaidura macroura*). Common. One of the commonest of our summer birds.

No. 333. Cooper's Hawk (*Accipiter cooperi*). Rare. This bird is not a common breeder in this county.

No. 337. Red-tailed Hawk (*Buteo borealis*). Common. This is the commonest Hawk here.

No. 339. Red-shouldered Hawk (*Buteo lineatus*). Very rare. I never knew of but one nest of this bird in this county. Out of this I secured one addled egg and a pair of the young birds. These I raised to full maturity.

No. 342. Swainson's Hawk (*Buteo swainsoni*). Very rare. I never knew of but one nest in the county and that I secured. It was located in a large elm tree in the river bottoms.

No. 343. Broad-winged Hawk (*Buteo latissimus*). Rare. Confined to the river bottoms.

No. 352. Bald Eagle (*Haliaeetus leucocephalus*). Rare. At the time of this writing, 1890, I do not know of a nest in the county. Formerly there were four nests within our borders. The last one had the tree cut in 1879 to secure the young birds. In the spring

of 1888 the writer "went through" an Eagle's nest only two miles north of the county line, and there is now an occupied nest within six miles of our north line.

No. 360. Sparrow Hawk (*Falco sparverius*). Rare. I have never taken a set of their eggs here but have seen them when nesting, the nesting places being inaccessible.

No. 366. Long-eared Owl (*Asio wilsonianus*). Rare. I have only seen two nests of this bird in this county.

No. 368. Barred Owl (*Syrnium nebulosum*). Common. Confined almost entirely to the river bottoms.

No. 373. Little Screech Owl (*Megascops asio*). Rare. Very few of this species nest with us here.

No. 387. Yellow-billed Cuckoo (*Coccyzus americanus*). Tolerably common. This bird is getting scarcer here every year.

No. 388. Black-billed Cuckoo (*Coccyzus erythrophthalmus*). Common. Seems to prefer the river bottoms for nesting.

No. 393. Hairy Woodpecker (*Dryobates villosus*). Tolerably common. In this place this species seems to nest most upon the river bluffs and in the orchards.

No. 394. Downy Woodpecker (*Dryobates pubescens*). Common. A common summer resident, and one that escapes the notice of most people.

No. 402. Yellow-bellied Woodpecker (*Sphyrapicus varius*). Tolerably common. As a breeder it is confined to the river bottoms so far as my observation goes.

No. 406. Red-headed Woodpecker (*Melanerpes erythrocephalus*). Abundant. With the exception of the Flicker this is our most common Woodpecker.

No. 409. Red-bellied Woodpecker (*Melanerpes carolinus*). Rare. I have never seen a nest of this species in this county, but have seen eggs taken here by a very reliable collector.

No. 412. Yellow-shafted Flicker (*Colaptes auratus*). Abundant. Our most common Woodpecker. Nests everywhere.

No. 417. Whip-poor-will (*Antrostomus vociferus*). Rare. Nests mostly upon the river bluffs.

No. 420. Night Hawk (*Chordeiles virginianus*). Common. Nests mostly in the river valley.

No. 423. Chimney Swift (*Chaetura pelagica*). Abundant. Nests only in chimneys hereabouts.

No. 428. Ruby-throated Hummingbird (*Trochilus colubris*). Common. The birds

are common here in the summer, but very few of their nests are taken by the collectors of this county.

No. 444. Kingbird (*Tyrannus tyrannus*). Common. These birds do not seem to be very particular as to their nesting site. I have seen nests in hollow stumps, and in willow trees not over six inches above the surface of the water in the river.

No. 452. Crested Flycatcher (*Myiarchus crinitus*). Common. Most plentiful in the river bottoms.

No. 456. Pewee (*Sayornis phæbe*). Common. A very common breeder here and nests everywhere.

No. 461. Wood Pewee (*Contopus virens*). Most plentiful in the river bottoms.

No. 465. Acadian Flycatcher (*Empidonax acadicus*). Common. This bird seems to have become much more plentiful here during the last few years.

No. 466a. Traill's Flycatcher (*Empidonax pusillus traillii*). Rather common. Not as plentiful as the preceding, and confined almost exclusively to the orchards.

No. 474b. Prairie Horned Lark (*Otocoris alpestris praticola*). Very common. Nests very early. At the time of this writing, February, 1890, I believe them to be nesting.

No. 477. Blue Jay (*Cyanocitta cristata*). Common. Not nearly as plentiful as formerly.

No. 488. American Crow (*Corvus americanus*). Abundant. The river bottoms are literally alive with this mischievous rascal.

No. 494. Bobolink (*Dolichonyx oryzivorus*). Rare. Several sets taken in 1888 by a collector here.

No. 495. Cowbird (*Molothrus ater*). Abundant. I have taken the eggs of this bird in this county in the nests of the following species: A. O. U. Nos. 563, 560, 598, 627, 624, 637, 677, 683.

No. 598. Red-winged Blackbird (*Agelaius phoeniceus*). Abundant. Thousands of them breed in the swamps of this county.

No. 501. Meadow Lark (*Sturnella magna*). Abundant. Every field has several pairs.

No. 506. Orchard Oriole (*Icterus spurius*). Common. This species is not so common here as the next.

No. 507. Baltimore Oriole (*Icterus galbula*). Abundant. Very common, and nests plentifully in the town. On my way from my home to the office, in the course of about a half-mile walk, I pass every day the deserted nests of five pairs of this bird.

No. 511. Purple Grackle (*Quiscalus quis-*

cula). Common. Most plentiful upon the uplands.

No. 511b. Bronzed Grackle (*Quiscalus quiscula aeneus*). Common. Restricted as a breeder to the river bottoms.

No. 529. American Goldfinch (*Spinus tristis*). Abundant. On account of the late breeding of this species it is known as a breeder here, only to the collectors of the county.

No. 540. Vesper Sparrow, Grass Finch (*Poæcetes gramineus*). Common. A bird little known here except to the collector.

No. 546. Grasshopper Sparrow, Yellow-winged Sparrow (*Ammodramus savannarum passerinus*). Common. Not as common here as the preceding.

No. 552. Lark Sparrow (*Chondestes grammacus*). Rare. Frequents the road sides mostly.

No. 560. Chipping Sparrow (*Spizella socialis*). Common. Not near as plentiful as a few years ago.

No. 563. Field Sparrow (*Spizella pusilla*). Common. A common summer resident, and one that breeds from about the first of April to the first of September.

No. 581. Song Sparrow (*Melospiza fasciata*). Very rare. One set of the eggs of this bird was taken in this county in 1888 by Burrows. None others ever taken in the county that I know of.

No. 587. Towhee (*Pipilo erythrophthalmus*). Common. Usually nests very early in the spring here.

No. 595. Rose-breasted Grosbeak (*Habia ludoviciana*). Rare. Formerly quite a common breeder, but rare of late years.

No. 598. Indigo Bunting (*Passerina cyanea*). Common. One of the common summer residents of this county. Usually frequents the road sides.

No. 604. Black-throated Bunting (*Spiza americana*). Common. Every field is full of this bird.

No. 608. Scarlet Tanager (*Piranga erythromelas*). Rare. While this bird is a resident of this county in the summer it is very seldom that the nest is taken, as they are scarce.

No. 610. Summer Redbird (*Piranga rubra*). Very rare. There has been but one nest of this species taken in the county, that I know of, and that was in 1879 by the writer.

No. 611. Purple Martin (*Progne subis*). Common. This bird now has to share his home here with the common English Sparrow, I am sorry to say.

No. 612. Cliff Swallow (*Petrochelidon lunifrons*). Abundant. Large colonies of this bird nest every year in this county.

No. 613. Barn Swallow (*Chelidon erythrogaster*). Common. Getting more plentiful of late years.

No. 614. Tree Swallow (*Tachycineta bicolor*). Abundant. This bird is very plentiful here, and is, so far as its breeding is concerned, confined to the river bottoms, where in the course of a day's collecting at the height of the season one can secure many dozens of nests.

No. 616. Bank Swallow (*Clivicola riparia*). Abundant. There are several large colonies of this bird in this county.

No. 617. Rough-winged Swallow (*Stelgidopteryx serripennis*). Rare. A few of these birds nest every year here.

No. 619. Cedar Bird (*Ampelis cedrorum*). Tolerably common. Formerly this bird was very common but of late years it seems to give us the go by as a breeder.

No. 622a White-rumped Shrike (*Lanius ludovicianus excubitorides*). Tolerably common. Not a very common summer resident here.

No. 624. Red-eyed Vireo (*Vireo olivaceus*). Common. This beautiful songster is one of the common residents of our woods in the summer.

No. 627. Warbling Vireo (*Vireo gilvus*). Common. Plentiful both upon the upland and in the river swamps.

No. 628. Yellow-throated Vireo (*Vireo flavifrons*). Rare. As a breeder it seems to be confined to the bluffs along the river valley.

No. 631. White-eyed Vireo (*Vireo noveboracensis*). Very rare. One set of the eggs of this species taken here in 1888. I never saw the nest of this bird in the county.

No. 637. Prothonotary Warbler (*Prothonotaria citrea*). Abundant. Restricted to the river swamps where it is the most abundant bird.

No. 639. Worm-eating Warbler (*Helminthorus vermicorus*). Very rare. One set of four eggs taken in June, 1888, by a collector living here.

No. 641. Blue-winged Yellow Warbler (*Helminthophila pinus*). Very rare. Formerly they were more common but never were plentiful as a breeder. I have not seen the nest of this bird in the last four years, but previous to that time used to occasionally find one.

No. 652. Yellow Warbler (*Dendroica aestiva*). Abundant. Orchards, and everywhere else, full of the nests of this species.

No. 659. Chestnut-sided Warbler (*Dendroica pennsylvanica*). Rare. Prefers the swamps of the river to nest in.

No. 677. Kentucky Warbler (*Geothlypis formosa*). Common. This bird is unusually plentiful here.

No. 681. Maryland Yellow-throat (*Geothlypis trichas*). Abundant. Nests all over the county.

No. 683. Yellow-breasted Chat (*Icteria virens*). Common. Usually selects as a nesting place some brushy place on the river bluffs.

No. 687. American Redstart (*Setophaga ruticilla*). Abundant. In this county this species is confined to the Illinois river valley.

No. 704. Catbird (*Galeoscoptes carolinensis*). Abundant. Breeds in all parts of the county.

No. 705. Brown Thrasher (*Harporhynchus rufus*). Common. Breeds in all parts of the county where suitable nesting places can be found.

No. 721. House Wren (*Troglodytes aedon*). Abundant. Breeds all over the county, but most common in the river bottoms, where it is very plentiful.

No. 725. Long-billed Marsh Wren (*Cistothorus palustris*). Rare. Very common ten miles north of here in the Snatchwine swamp. Several nests have been taken in this county by different collectors.

No. 727. White-breasted Nuthatch (*Sitta carolinensis*). Tolerably common. Several sets of eggs of this species, one of nine eggs, taken here of late years. I never took a set in the county.

No. 735. Black-capped Chickadee (*Parus atricapillus*). Common in the swamps. Not common elsewhere.

No. 755. Wood Thrush (*Turdus mustelinus*). Common. Most plentiful in the timber of and bordering the Illinois river valley.

No. 756. Wilson's Thrush (*Turdus fuscescens*). Very rare. On May 30, 1889, I found a single egg of this species in the nest of a Summer Yellowbird. There is no doubt as to the identity of the egg. It is the only egg ever found in the county that I know of, although I have seen the birds here in the breeding season.

No. 761. American Robin (*Merula migratoria*). Common. There is not one that breeds here now where ten years ago there were five.

No. 766. Bluebird (*Sialia sialis*). Common. This is a common breeder here all over the county.

R. M. Barnes.

Lacon, Illinois.

Nesting of the Blue-Winged Yellow Warbler in Delaware Co., Pa., in 1890.

On the 27th of May, 1890, I started out with the hope of finding some Warblers' eggs. It had been raining very hard all the afternoon and evening of the previous day, and tramping through the wet woods was by no means a pleasant task. Every few minutes I would strike my head on a branch and a shower of rain drops would run down my neck.

For hours I tramped over hillsides in several woods without finding anything,—not a single nest save an old one of the Worm-eating Warbler. After I had been looking for four or five hours I heard a pair of Blue-winged Yellow Warblers acting as if they had a nest. I looked all over the hillsides where I heard them, and also at the top of the hill for at least twenty minutes without success. Then I thought possibly if I laid down for a time the female might return to her nest. It was tiresome work waiting, however, for the birds were very wary and disposed to regard me as an unwelcome intruder in their neighborhood. At last, however, all was quiet, and I resumed my search, this time entirely at the top of the hill (for I had about made up my mind that the nest was somewhere at the top of the hill) but still without success. This was rather discouraging as I had apparently looked thoroughly over every available spot where the nest might be.

There still remained a small piece of woods, however, divided by a fence from where I had been looking and on the edge of a large field. As a sort of forlorn hope I crossed this fence and had taken but four or five steps when I flushed the female, and, looking down, right at my feet was the nest, which contained five eggs.

It was placed at the foot of a small sapling, and the bottom of the nest rested on the ground, though not embedded in it. It was not more than fifteen yards from the field I mentioned before, and was a beautiful structure composed externally of leaves and grape-vine bark, lined with fine dried grass, and a little horse-hair. It was a trifle smaller than the one found by me last year (which also contained five eggs, which seems to be the usual number) although made of exactly the same materials. The eggs were quite heavily marked for specimens of this species, and were about five days incubated. As the set I found on the 29th of

May, 1889, was about seven days incubated it shows how very regular the birds are about laying. It seems to make little difference whether it is a backward spring or not the birds lay just the same and are apparently not in the least influenced by the weather.

A curious thing I have noticed about the Warblers' nests I have found, is their apparent preference for the edge of a woods rather than in the centre.

While I was packing up the eggs the birds made quite a noise, the female in particular coming to within five yards of me and uttering plaintive cries.

Although I was very wet and tired I felt well satisfied with the result of my day's tramp, for they are very rare birds in this locality.

J. P. Norris, Jr.

Philadelphia.

The White-Bellied Nuthatch a Friend of the Farmer.

At this time of the year when the cocoons of the tent caterpillar are to be seen on every farm the White-bellied Nuthatch is particularly useful, destroying as it does large numbers of these cocoons. Tearing them from their fastenings they drag them along the rough bark of the tree until they catch, then pulling at them, and in this way tear off all the outer covering of the chrysalis, which they devour with apparent relish. These together with the numerous other insects which go to make up their daily food particularly recommend them for protection on the farm.

S. R. Ingersoll.

Ballston Spa, N. Y.

Two Broods Raised in the Same Nest by Pewee.

On May 4th I discovered a nest of the Pewee upon the top of one of the blinds of our house, and upon investigating found it contained two eggs, later on it contained four. These were hatched, and in due time the young birds left the nest. On July 4th I noticed the bird again on the nest and upon examining found one egg and a young bird just hatched.

Is it usual for the Pewee to rear two broods in the same nest without repairing the same?

S. R. Ingersoll.

Ballston Spa, N. Y.

A Series of Eggs of the Worm-Eating Warbler.

No where else has the Worm-eating Warbler (*Helmitherus vermivorus*) been found breeding so abundantly as in Chester County, Pennsylvania; and singularly enough all the eggs of this bird which have been found there have been taken by Messrs. Thomas H. Jackson and Samuel B. Ladd; and it is to the labors of these very proficient and indefatigable collectors that oölogists have become well acquainted with eggs that were formerly exceedingly rare.

Mr. H. K. Jamison found two or three sets of eggs of this Warbler in the neighborhood of Manayunk, Pennsylvania; and Mr. Isaac S. Reiff has found a like number of sets in Bucks County, Pennsylvania; but with the exception of these all the recorded eggs of *H. vermivorus* that have been taken in that State were collected by Messrs. Jackson and Ladd.

It is not claimed that the series now before me, and described below, contains all their types of coloration and sizes, but it exhibits all but the rarest phases.

Set I. June 7, 1889. Chester County, Penn. Collected by Samuel B. Ladd. Nest made of dry leaves, and lined with hair moss, under a small bush. Four eggs, incubation begun. Light creamy white, profusely speckled with cinnamon-rufous and a few markings of pearl gray. Near the larger ends the specks are much heavier and closer together: .68 x .56; .67 x .56; .66 x .52; .63 x .55.

Set II. June 3, 1889. Chester County, Penn. Collected by Samuel B. Ladd. Nest made of dry leaves, lined with hair moss, on ground at foot of beech tree. Four eggs, incubation advanced. Light creamy white, profusely speckled with cinnamon-rufous and lavender-gray. At the larger ends the markings are much closer together: .68 x .54; .69 x .53; .70 x .55; .69 x .54. This set contains a Cowbird's egg.

Set III. June 5, 1888. Chester County, Penn. Collected by Thomas H. Jackson. Nest of dry leaves lined with hair moss, near the summit of a steep hillside, in thick, heavy timber, in a dark and secluded ravine, with stream of water flowing at base of hill. Mr. Jackson says: "The bird sat very close, and I could have caught her on the nest. The latter was entirely concealed, excepting in front, by a small laurel bush. The nest was bedded in a hollow scratched by the bird. A thick mass of dry leaves lay around, of which the nest

seemed to be a part until it was taken out." Five eggs, incubation commenced. White, speckled and spotted with chestnut and a few specks of lavender-gray. On four of the eggs the markings are very much heavier at the larger ends, but on the fifth the markings are much lighter: .68 x .55; .68 x .55; .69 x .54; .68 x .53; .68 x .54.

Set IV. June 27, 1889. Chester County, Penn. Collected by Samuel B. Ladd. Nest of dry leaves, lined with hair moss, on ground, under low bush. Three eggs, incubation slight. White, speckled with chestnut and a few markings of lavender-gray, the markings being heavier near the larger ends: .70 x .55; .73 x .56; .73 x .55. Two Cowbird's eggs were found with this set.

Set V. June 3, 1889. Chester County, Penn. Collected by Samuel B. Ladd. Nest of dry leaves lined with hair moss, on ground, under a broken limb. Six eggs, incubation begun. White, speckled uniformly with hazel: .67 x .54; .68 x .53; .68 x .53; .68 x .53; .70 x .53; .69 x .53.

Set VI. June 6, 1887. Chester County, Penn. Collected by Samuel B. Ladd. Nest of dry leaves, lined with hair moss. On level ground, at top of a hill. Five eggs, incubation begun. White, spotted with hazel all over the surface, but a little more heavily near the larger ends: .70 x .54; .71 x .55; .70 x .55; .71 x .56; .73 x .56.

Set VII. June 9, 1888. Chester County, Penn. Collected by Samuel B. Ladd. Nest of dry leaves, lined with hair moss, under fallen limb where leaves had drifted. Five eggs, incubation far advanced. White, speckled, more heavily at the larger ends, with hazel: .69 x .49; .70 x .51; .68 x .50; .69 x .50; .68 x .50.

Set VIII. June 7, 1889, Chester County, Penn. Collected by Samuel B. Ladd. Nest of dry leaves, lined with hair moss, on ground under a poplar sprout. Five eggs, incubation commenced. White, speckled and spotted with hazel. At the larger ends the markings are heavier: .69 x .49; .65 x .48; .68 x .50; .65 x .49; .65 x .48.

Set IX. June 7, 1889. Chester County, Penn. Collected by Samuel B. Ladd. Nest of dry leaves, lined with hair moss, under a blackberry bush, in a slight cavity in the ground. Six eggs, incubation begun. White, uniformly spotted all over the surface with hazel: .73 x .51; .72 x .51; .71 x .51; .73 x .51; .73 x .52; .71 x .52.

Set X. June 5, 1889. Chester County, Penn. Collected by Thomas H. Jackson. Nest of

dry leaves, lined with hair moss, on a steep hillside sloping to a creek, beneath a tuft of laurel which overhung and partially concealed it. Mr. Jackson says: "The female was very tame, and allowed me to approach within two feet of the nest before leaving it, and then fluttered on the ground at my feet. The nest was situated on the side of a thickly wooded ravine, with a thick growth of laurel and other undergrowth." Five eggs, incubation begun. Light creamy white, profusely speckled with chestnut, and a few specks of lavender-gray. Near the larger ends the markings are much heavier: .69 x .54; .70 x .54; .71 x .55; .69 x .54; .68 x .53.

Set XI. June 27, 1889. Chester County, Penn. Collected by Samuel B. Ladd. Nest of dry leaves, lined with hair moss, on ground under a small bush. Four eggs, incubation begun. White, uniformly spotted all over the surface with hazel: .69 x .54; .66 x .54; .73 x .54; .69 x .53.

Set XII. June 30, 1889. Chester County, Penn. Collected by Samuel B. Ladd. Nest of dry leaves, lined with hair moss, on ground under a small bush. Four eggs, incubation begun. White, thickly spotted and speckled with chestnut and a few markings of lavender-gray. Near the larger ends the markings are much heavier, and on one of the eggs they form an indistinct wreath: .66 x .50; .67 x .51; .66 x .51; .69 x .52.

Set XIII. May 10, 1889. Iredell County, North Carolina. Collected by R. B. McLaughlin. Nest of dry leaves, lined with hair moss, on ground on a steep hillside. This set is interesting on account of coming from North Carolina, and also as showing that the birds choose exactly the same materials for their nest in that State that they do in Pennsylvania. Four eggs, incubation begun. White, heavily speckled, principally at the larger ends, with chestnut, and a few markings of lavender-gray. On one of the eggs the markings are so close together at the larger end that they almost become confluent: .65 x .51; .65 x .52; .65 x .54; .65 x .52.

Set XIV. May 30, 1888. Chester County, Penn. Collected by Thomas H. Jackson. Nest of dry leaves, lined with hair moss, sunk into ground, on steep hillside, under a bunch of laurel. Four eggs, fresh. White, thickly speckled and spotted with hazel, and a few markings of lavender-gray. Near the larger ends the markings form wreaths on three of the eggs: .67 x .51; .66 x .54; .66 x .51; .67 x .51.

Set XV. June 3, 1889. Chester County,

Penn. Collected by Samuel B. Ladd. Nest of dry leaves, lined with hair moss, on ground under a bush. Five eggs, incubation commenced. Light creamy white, profusely speckled with hazel and a few markings of lavender-gray. Near the larger ends the markings are much heavier: .68 x .56; .70 x .56; .67 x .55; .64 x .52; .65 x .54.

Set XVI. May 30, 1888. Chester County, Penn. Collected by Thos. H. Jackson. Nest of dry leaves, lined with hair moss, on ground, under a small dogwood tree, growing on a hillside. In a very dark, rocky part of the woods, near a stream. Five eggs, incubation advanced. White, very heavily speckled, but principally at the larger ends, with chestnut and a few markings of lavender-gray. The markings are so close together that they are almost confluent: .77 x .55; .74 x .56; .72 x .55; .72 x .56; .73 x .56.

Set XVII. May 31, 1886. Chester County, Penn. Collected by Thomas H. Jackson. Nest of dry leaves, lined with hair moss. Mr. Jackson says: "The nest was situated on a steep hillside, in woods, at the root of a small hickory tree about a hundred feet from a stream. The birds were very tame and showed great alarm at my presence." Six eggs, incubation begun. White, profusely speckled with chestnut and lilac-gray. Near the larger ends the markings are so heavy that they partially obscure the surface: .67 x .54; .65 x .55; .65 x .55; .66 x .56; .64 x .53; .69 x .53.

J. P. N.

European Goldfinch Breeding in Massachusetts.

I had brought in to me for identification a nest and five eggs and female of the European Goldfinch, in July. It was found in the north part of the city by a young collector, and is the first find of the kind for this county, I think. The nest was placed in an apple tree about seven feet from ground, made of grass, quite bulky, and lined with hair, thread, feathers and vegetable fibre. Eggs, pale green with a few spots and streaks of brown mostly on large end, and averaged .72 x .50. About two weeks later my boy, while out in another section of the city, saw one of the same birds flying over, and making a good shot secured it, this one also proving to be a ♀.

Chas. K. Reed.

Worcester, Mass.

Off for Newfoundland.

Homer Bigelow left Boston in June on the steamer Halifax. After a pleasant sail of thirty-six hours he arrived at Halifax, Nova Scotia, the only exciting feature of the trip being a prolonged struggle between him and Neptune in which he claims to have come within a mile of winning, not giving in till he reached the harbor, and we are inclined to credit that to the effects of the first sight of the giddy Red Coats on the dizzy heights of "The Citadel." In his second letter dated St. Johns, Newfoundland, he writes:

"I arrived here after a beautiful voyage. The vessel rollicked and played on the waves which ran mountains high. The steamer was freighted with cattle and the quarters close. I met a gentleman who, having overheard me in conversation, gave me considerable information, and ended by informing me of the whereabouts of John C. Cahoon. I had said nothing about eggs, but he whispered gently in my ear, sweet and low, 'going after eggs, ain't you?' How was that for mind reading?"

He refers to seeing tremendous icebergs which he felt inadequate to describe.

He had no difficulty in passing his goods through the customs, they being merely of a personal nature:

His third letter, June 16th, was dated Placentia. He writes: "After leaving St. Johns I took the train for this point. Oh what a country! Nothing but rocks and mountains, scrub oaks, pines and cedars and very little of them. If after the Lord had made the world he had tossed the refuse in a pile it would not have made a better Newfoundland. Well, on arriving at Placentia I asked during conversation if any hunters or collectors had been here? They immediately said 'Oh, yes, *Cahoon, the Bird Island man* is here now.'

"I secured a Fish Hawk and Great Black-backed Gull; the latter measured 66½ inches tip to tip, and the plumage was white as snow, except, of course, back and wings." In closing he writes that he finds the people very hospitable, none being excelled by Mr. Jonas Barter and his good wife, with whom he is stopping. Cahoon had just left; although he started a long time since, he was very much delayed by the failure of his baggage to arrive, it being sent by freight.

Mr. Bigelow will take notes during his trip, the above being extracts from letters to his mother.

WHY CAHOON IS KNOWN AS THE BIRD ISLAND MAN:—

DARING ACT

Of American Ornithologist at Bird Island.

HE SCALES A PERPENDICULAR CLIFF THREE HUNDRED FEET HIGH.

Shuddering Fishermen Lean on Their Oars

And Witness the Dangerous Ascent. — Millions of Birds.

A daring feat was accomplished at Cape St. Mary's a few days ago by an American ornithologist, Mr. J. C. Cahoon. Not far from the lighthouse is an island, commonly called the Bird Island, where different kinds of our sea birds come to breed. This gentleman, wishing to procure the different species for his collection, determined to scale it. It is about 300 feet high and perpendicular for about 200 feet.

On the morning of the 10th of July he commenced the ascent. Quite a number of men from the fishing boats, hearing that he was going up, collected there to see him, for they were under the impression that it could not be done, as two men had already been killed in trying to ascend it. But they say that about forty years ago one man, an Englishman by the name of West, went up and came down again. They, however, can give no proofs of the truth of this story. Having divested himself of part of his clothing — his boots and socks — he started to climb. There was nothing for him to catch hold of in some places but the crevices and splits in the face of the cliff. It made every one shudder to see him slowly making his way to the top, holding on to nothing as it seemed — loose rocks tumbling down behind him with an echo as loud as thunder. He took his gun with him and a small rope, which was lent to him by J. F. McGrath, Esq., who was at Golden Bay at the time and kindly manned his boat, took him out to the island, and did all in his power to help him in his ascent. To get the rope up he took with him a ball of small twine, which was fastened to

the end of the rope. He would climb up twenty or thirty feet, then haul up the rope to him, and so on until he reached the top. When half way up he found that his gun was too heavy for him and only endangered his life, so he lowered it down by means of a rope, and in its place took a club to ward off any attack of the birds. One place he passed over was very dangerous. He could get no secure footing at all, but he found it was safer for him to go ahead than to come back. Each of his feet were resting on loose rocks, which were ready to fall, and the same may be said of his hands.

With death staring him in the face, he was quite cool and collected, talking with the men below. He is a man of splendid nerve power. Carefully making place for his hands and feet, by pulling away the moss and scraping away the loose stones in the crevices, he made his way up until he reached the top, which he accomplished in one hour from the start. I may state with truth that there are millions of birds there. It was well worth looking at to see their surprise and confusion when they saw him—craning their necks and flapping their wings. With his club he could kill as many as he cared to. They would not get out of his way. At one time they rose in a cloud so thick that he was nearly knocked off the top, some of them coming so close as to strike his head with their wings. He only held his ground by stooping and using his club. To get the birds and eggs (of which he found thousands) down, he used the rope which he took up with him—the men hauling from below.

Close beside this island, and running out towards it, is a point of land about 10 feet higher than the top, about 100 feet distant, and about 20 feet wide on top. Mr. Thos. Cornick of the lighthouse department, who is there doing some repairs to the lighthouse tower, and who was standing and watching the ascent, suggested that, instead of lowering the basket down the cliff, it might be brought across the chasm between the point and the island by means of a fishing line thrown from this point to it. This was done, and as many birds as were wanted were hauled across in this way. Quite a number of live young birds were sent over by tying them on a string by the legs. Having got all that he wanted, the greatest task was yet to be accomplished—that of descending—the danger being that the loose rocks would tumble down and kill him as he went, which he intended doing by means of the rope which he took up, but in

another spot, as where he ascended was too dangerous a place to descend. Mr. Cornick thought that instead of going down he might be brought across from the top by means of ropes, if Mr. Cahoon felt willing to trust him to do so. He being perfectly satisfied to come that way, a small rope was passed across (by means of the fishing line before spoken of) to make a strap to go around a rock on the island, and also some canvas to “serve” the places where the strap touched the rock. Having got his ropes, which he was using at the tower, and which were quite new and perfectly safe, the end of one tackle-fall was sent across and passed through a block (which was made fast to the strap around the rock) and then brought across again and knotted together. Another strap was sent to him to go around his body, so that he could fasten himself to one part. All being in readiness, he was asked if he thought everything was safe. Expressing himself satisfied, the fishermen were arranged so that some could slack out on one part and some haul across on the other. When he started to come he took hold of the part that was running from him to guide himself. When half way across, fearing he might become exhausted before reaching the other side, he shouted to the men on the cliff to hold firm the rope, and loosening his hold he dropped a distance of 20 feet, the rope around his body checking his fall and saving him from instant death on the rocks 300 feet below. He was then quickly drawn on to the cliff, and was at once surrounded by a crowd of sympathetic friends and fishermen, who lustily cheered and shook hands, knowing that it had indeed been a narrow escape for the daring young ornithologist.—[*St. John's Evening Telegram, July, 1889.*

Wanderings, No. 8.

Again has come the unrelenting command of “ye editor-in-chief,” “Copy for the printer to-morrow morning, and not too scientific either.” And although my brain is filled from “morn till dewy eve” with Latin names and scientific correspondence I must throw them aside and rack my thinking machine for something “interesting.”

So now, as I sit here in my easy chair, with trophies of many wanderings bedecking floor and wall, my eyes are attracted by a beautiful set of antlers of the Woodland Caribou, presented me during a trip to the province of

Nova Scotia by Maj. Thos. Egan of the Halifax Rifles, a naturalist, a keen sportsman, a fine shot, and hence, *of course*, a good fellow; and my mind turns toward the memory of an outing taken in his company, and as his guest, the thoughts of which will be long in fading from my memory, and I only hope that as his eyes scan these lines he too will be able to say, "That was a great day."

I had spent about a week in exploring the vicinity of Halifax, and one afternoon was sitting in Mr. Egan's place of business when I was saluted with, "Bates, how would you like a day at Three Fathom Harbor?" Now it did not take me over two seconds to make up my mind, and accordingly the next afternoon found us sitting behind a stout little nag with the spires of Halifax fast fading in the distance. My eyes were kept busy with the ever-changing scenery which opened up views of lake, sea-shore and forest, in never-ending succession.

Here was a chain of lakes stretching away in the distance, an exploration of whose shores would disclose spots which would make the weary heart of the city denizen open up like a rose before the morning sun; and just beyond a view of the broad ocean which would make an artist throw down his brush in despair because he could not approach its beautiful reality, and farther on the road wound through dense forests of spruce, whose desolate quietude would cause one's blood to run in icy channels from the heart.

From amidst these varying scenes we suddenly came out upon a lone house perched upon a bluff, ascending which we could look down upon the ocean, glimmering in the rays of the setting sun, and reflecting the shadows of the myriads of gulls and other water-fowl which sailed above or floated upon its surface.

The ride of about twelve miles had given us good appetites for the supper which soon awaited us, and after a walk we sought our beds, to wake only when the first rays of the morning sun shone in at the windows.

An early start and a drive of a few miles brought us to our destination, and we soon had our cartridges in our vests and with our guns under our arms were ready for the day's work.

A boy being dispatched for a boat, we wended our way to the beach, and Dame Fortune smiled upon the stranger with a Ring-neck (A. O. U. No. 275) which fell to the crack of the Parker, and "First blood for the Yankee" was proclaimed.

On the arrival of the boat we made for Shut-

in-Island, bagging a small Scoter on the way.

Say, Tom, how many shots did it take to bag that duck?

At the island we found the Sandpipers (No. 242) very plentiful, and mingled with them were a few Semi-palmated (No. 246). Hundreds could have been shot in a few moments, but a few satisfied us.

Then "Canada" got amongst the Bonapartes (No. 60) and secured a few, and while retrieving these, a sharp whistling was heard and a small flock of Turnstones (No. 283) pitched on to the rocky beach beyond. It was now creep and crawl, and every blade of grass and hillock of sand was eagerly sought as a refuge. Patient work brought its reward, and three birds fell to my companion's gun, none coming my way.

No more "large birds" came to hand, and tiring of shooting "Peeps" we took the boat and rowed up the harbor.

A shot at a gull brought it wounded upon the flats, and before a "quietus" could be given it, its cries had attracted a large flock, and two more fell victims to the greed for specimens, which subsequently proved to be probably Ring-bills (A. O. U. No. 54) in young plumage.

I am informed by friends in Halifax that this is a somewhat unusual occurrence, and Mr. Downs, the veteran ornithologist of Nova Scotia, never saw it, and does not mention it in his list.* This seems rather strange as the bird is common on all sides of the province. Mr. Harry Austen, of Halifax, who possesses one of the birds, writes me that the nearest points at which he knows of the bird is on the Canadian Lakes, and until further noted we must only accept it as a probable addition to the List of the Birds of Nova Scotia.

A careful examination of the shores and channel failed to disclose anything of interest until we got back on to the mud flats.

Here was seen a flock of Ring-necks, and it was a question whether we wanted them badly enough to wade for them, and finally concluded that mud and water were good for us, and six of these birds were added to our bag.

The sun was now rapidly sliding down the western sky, and after a hasty dinner we started back toward Macdonald's, our stopping place of the night before. As we reached the sandy beaches near this place the sound of the

* *Vide*, List of Birds of N. S. Trans. N. S. Inst. Nat. Hist. Vol. 7, part 2, page 142.

whistling birds was too much for our blood, now aroused in murderous intent.

By the kindness of my companion, I was sent along the shore while he continued along the road with the carriage. A few birds came to my bag and I was jogging down the beach when the report of the Major's gun behind the sand-hills gave token that he was not idle, and the form of a Curlew appeared over the bluff.

A charge of No. 8's made him wince, and he pitched on a small patch of stones about sixty rods off; but his erect head showed that he was not dead, and there was no cover near, the only chance of approach being from behind the bluff.

Climbing and crawling, I at last reached a spot opposite him, but it was an awful distance and nothing larger than No. 8's in my shells.

A shot keeled him over, but he got up and after wheeling and fluttering over the spot for several turns he pitched behind a sand-hill and could not be found. The air was smoky for a time in that immediate vicinity.

I now took the road and drove to the nearest house, and went back to meet the Major who had taken the beach.

A shot from him started a flock of six Ringed Plover in my direction. Three fell to the right barrel, two to the left, and another shell brought the last one safely to his last home.

This finished the shooting, for a long drive was before us, and a hard day's work was behind us, but the ride though the still and quiet woodland now darkened by the approaching night was a fit ending for the rest of the day, and we reached Halifax with many more pleasant memories added to our list.

F. A. Bates.

Coloring on Birds.

There is, perhaps, no truth more wonderful or more important than that of the correlation of the laws of nature, or truth which is being enforced continually, not only by the discovery of new instances, but by the very process by which those discoveries are made. Some central principle is discovered in one department of the physical world and immediately its presence and influence in some other department appears. The following remarks will illustrate this with regard to the coloring upon birds and the law of harmony they exhibit.

It had been long known to me that the coloring on birds served a number of useful ends,

such as affording a means of attraction and selection among themselves, and also as affording a means of concealment from pursuers and from pursued. I also knew that this last end was secured by the conformity in color of any particular bird to its environment. A single example will suffice to show what I mean. In the case of the Common Gull we have it so colored beneath as to conform to the color of the sky above it, which makes it less visible to its prey beneath, while its back is of such a color as to blend with the color of the waves under it, which helps to conceal it from its enemies above. Now it is obvious that the law governing such an arrangement as this must be the conformity of color in any subject to its environments. It was not until making a special study of color in other departments of nature that I found existing along with this utilitarian law in the coloring of birds another law or principle reducing these colors into harmonies. I have here spoken of the correlation of these laws because in some cases the one can not be understood without knowing something about the other.

The principle of harmony here spoken of consists in the colors in any arrangement being such as to act on the vision in such a way as to produce unity of effect. Colors can not be used together indiscriminately without affecting one another by their complementaries, which they have the power of calling up and so making discord, whereas in natural arrangements of color there is the presence of one or more unifying colors which have the power of cancelling this injurious effect, in other words produce harmony. This is the secret of nature's harmony in color, as could be shown in innumerable instances and in every description of natural objects, but in none of them is it more strikingly illustrated than in the case of birds.

In reading a paper before the Boston Scientific Society lately, on the principle of harmony in color found in nature, I was greatly helped by Mr. Frank A. Bates, who kindly furnished a number of specimens of the feathered tribe exemplifying the principle. These specimens were handed round among the members for inspection after the unifying colors had been pointed out. It is not so easy without examples or illustrations to explain the nature of these unifying colors or harmonizers. To those in any measure acquainted with the mixture of pigments a description will be easier. The unifying color partakes of the nature of the individual colors with which

it is associated, in other words it is a color which could be produced by the mixture of the individual colors in pigment form. Thus, to take an example, in the common Gull, already referred to, we have an arrangement of three colors, black, white and gray. Now if we take the black and white in the form of pigments and blend them we find that the third color, the gray, is produced, and so it will be seen why we say it is of the nature of the individual colors involved in the arrangement. It is the unifying agent in the arrangement which gives repose and harmony. It would occupy too much space to explain how it so acts. I hope, however, that sufficient has been said to indicate what the principle is, and to enable lovers of birds to seek for it. I might just refer to subjects which appear to be exceptions, that is, there are some specimens which do not possess a unifying color in themselves, as it is such instances which show the importance of studying the correlation of natural laws. I believe it will be found in this department (as I have found in the floral world very strikingly) that these are only exceptions in appearance, and will prove no exception when taken in connection with their surroundings which will supply the element of harmony lacking on the specimen itself. Those familiar with the habits and location of birds might be able to throw great light on the subject, which is not only interesting but of the highest practical importance since it is by a true apprehension of the principles of coloring in nature that we may expect to rightly apply the same in art. *George Smith.*

Boston, Mass.

Are the Changes in the Common Names by the A. O. U. Popular?

PERHAPS THE NAMES WERE CHANGED ON
ÆSTHETIC GROUNDS ONLY?

Editor of O. & O.:

I hope I may not be too late in sending my vote in regard to the changes of common names of some of our birds by the A. O. U. I am not familiar with all the birds but think it all right. I agree with W. H. L. in the May O. & O.; if the leading ornithologists who are better acquainted with the birds of North America think the change is for the better I say it is all right. I believe in calling birds by their right names. But why quarrel about the common name? The scientific is what I want. Why call *Cathartes aura*, Turkey Buz-

zard, when they are so different from the true Buzzard, and yet that is the local name the bird goes by. What may seem the right name for a bird in one locality may seem out of place in another. We want a name that will do everywhere. If we are not used to it let us get used to it. I also agree with C. J. Maynard about the O. & O. I am willing to double my subscription price at any time. Let us have an addition to the O. & O. *A. L.—Minn.*

DOES NOT SEE AN IMPROVEMENT.

Editor of O. & O.:

Having been requested to send in my vote on the names of the four birds No. 534, 540, 546 and 604 of the A. O. U. nomenclature, you can put me down as voting to retain the common names, *i.e.*, Snow Bunting, Grass Finch, Yellow-winged Sparrow and Black-throated Bunting, for to my mind these common names are much more suggestive of the habits of the birds, also of their appearance, as in case of Black-throated Bunting and Yellow-winged Sparrow. The names Dickeissel and in fact all the new names mean nothing to me. I do not believe that I am the only one who does not vote for a change. Perhaps I am not initiated enough to appreciate the beauty of the new names but the old ones bring the bird up before the mind's eye so plainly that I think a change would be rather more injurious than beneficial.

R. H. H.—Mass.

THE WAY MANY FEEL.

Editor of O. & O.:

I have been much interested in reading in your last two issues the discussions on the changes in the names of some of our common birds by the A. O. U. committee. I am young in the cause of ornithology as yet, my first inspirations in that branch of natural science being drawn from Samuel's "Birds of New England," a volume of which I found in our school library some five years ago. By constant study of that book (a large part of which I copied) the names of the birds became very familiar to me, and I must confess that even now I greatly prefer both the names and the classification as therein given to any I have since seen. Of the four birds named in your April number, with two only am I familiar—the Bay-winged and the Black-throated Buntings. Probably I would not now have been acquainted with them if I had had to look them up in some of our later ornithological works under the names of Vesper Sparrow and "Dickeissel." I must say that I don't like the

"short, poetical" names in the least. The old names—in so many cases descriptive of plumage, etc.—furnish the young student of ornithology an instant clue to the identity of any bird with which he is unfamiliar. So put me down as favoring the old, first, last, and always.

F. W. M.—Ala.

NOT THE ONLY ONE WHO THINKS THE CHANGES
A NEEDLESS BOTHER.

Editor of O. & O.:

I decidedly prefer the old names, not only because they are familiar to us all but more for the reason that there is nothing to gain by such changes, while there is much to lose. It is a loss to any branch of science if changes are made that will confuse the student, and when such changes are made merely to bring notoriety for a few men who are well able to use their knowledge in a way that would benefit ornithology, it brings dissatisfaction and retards the study among those who must be the ornithologists of the next decade. Such changes only confuse without giving any satisfactory results.

It seems a pity the Union cannot find work enough to do among our winged friends in studies that would increase our knowledge and ennoble this great branch of Natural History instead of devoting its time trying to retard and depopularize what we would suppose they ought to uphold and increase.

L. E. H.—Mass.

Nesting of the Worm-Eating Warbler near Leighton, Ala.

On the 29th of April this year I was fortunate enough to find a nest of the above species containing five fresh eggs, and seeing but little in our oölogical papers concerning the nesting of this Warbler (*Helmitherus vermivorus*) I thought an account of it would be interesting to the readers of the O. & O.

I was on La Grange mountain looking for nests of the Black and Turkey Vultures, and having walked along the bluff some two miles was becoming rather discouraged at finding nothing, when happening to glance down I saw a small bird running along the ground with its wings outspread as if wounded. I knew at a glance that it had a nest, and therefore commenced looking for it; and seemingly examined every inch of ground for yards around but no nest could I find. So I walked off a short distance and sat down, determined to wait until

the bird returned. In a few minutes its distant *chip, chip*, was heard, and soon both birds were seen anxiously flitting from tree to tree and by degrees coming nearer. I sat very still and watched their every movement for some half hour or so, as it was about that length of time before the bird summoned up sufficient courage to alight on her nest. I walked quickly to the spot and there was the nest deeply imbedded in the dead leaves with which the ground was covered.

It was at the foot of a small bush on the hill-sides and could only be seen through one small opening from below. It was composed chiefly of dead leaves lined with fine grasses, and contained five fresh eggs thickly marked over the entire surface, but more heavily on the larger end, with two shades of brownish-red and obscure lilac on a pure white ground.

The Worm-eating Warbler is a very rare breeder in this locality, and indeed the above pair are the only ones I have seen here in the spring. Last year the fall migration of this species here was as follows: First one, a ♂ appeared in the swamp July 19th; next one seen on August 5th, a gradual increase from this date until the 10th; from 10th to 15th, height of season, decreasing in numbers from this date; last one seen on September 9th.

F. W. M.

Leighton, Ala.

A Motherly Pelican.

A very curious sight is to be seen in Central Park of this city. There is a pet Pelican together with a lot of Canada geese, and a pair of Trumpeter swans and ducks kept in the park for the pleasure they give the people.

Now this old Pelican thought it was about time for her to begin to raise a family, so being without a mate she gathered all the duck eggs she could find in the pouch under her bill and deposited them on a pile of sand and stone in a somewhat secluded part of the park. She has now been incubating for about ten days, and I suppose she will soon bring out her "chicks."

Will de la Barre.

Minneapolis, Minn.

RARE BIRDS IN THE VICINITY OF OTTAWA, ONTARIO, CANADA.—In the month of May Mr. J. Fletcher shot six specimens of Lapland Longspur (536) within a short distance of the city. On the 9th of May I obtained a specimen (♀) of Dowitcher (231), and on the 27th of June obtained a fine specimen (♀) of the Yellow-bellied Cuckoo (387).

Geo. R. White.

Ottawa, Ont., Can.

Nesting of the Golden-Crowned Thrush in Chester County, Penn.

Although a common breeder in Chester County, Penn., the nest of this species (*Seiurus auricapillus*) is by no means easy to find, and it was not until this year that I succeeded in obtaining any sets of their eggs.

My first nest was found on June 12, 1887, and contained young birds. It was placed on the ground in woods near a stream of water.

The next nest I found was on June 6, 1888. I was searching in a thick woods when suddenly a Golden-crowned Thrush got up and ran along the ground as if she had a nest. It was on the bank of a stream, and the ferns and small shrubs were growing plentifully, so that I looked for some moments without success. Finally I raised a small dead branch and threw it out of the way. I then noticed a small piece of dried grass, and on stooping down to investigate it, it proved to be the nest. Imagine my disgust, however, on finding that I had unconsciously trodden on it and broken three of the five eggs which it contained.

In 1889 I found two more nests but was unsuccessful in obtaining sets of eggs from them. The first one was found on June 9th, and contained three young birds and two eggs which were about ready to hatch. This nest was an unusually large one, and its top was at least three inches from the ground. It was placed near a large tree, in a rather open spot in the woods. The birds displayed great uneasiness at my presence; the female running along the ground and trying to decoy me off.

Another nest was found on the 21st of June, 1889, and contained five eggs, but as they were nearly ready to hatch I did not disturb them. The way in which this nest was found was somewhat peculiar. It was almost at the foot of a dead tree near the top of which was a Flicker's hole. I rapped on the trunk of the tree and out came a Flicker. Just at the same minute my cousin, who was with me, called my attention to a Golden-crowned Thrush which had just gotten up at my feet. The nest was very cleverly hidden, only a small corner of it being visible and the rest was concealed in a hole in the bank.

It was not until the 22d of May, 1890, that I was able to obtain any sets of eggs. On that date I was fortunate enough to obtain two fine nests of five each. The first was situated on a steep hillside in a woods. The bird got up right under my feet, and it was an easy matter to find the nest. The Golden-

crowned Thrush is very courageous and does all in its power to prevent you from disturbing its eggs or young, and this one was no exception to that rule, making a great fuss while I was packing up the eggs.

The second nest was found in a different part of the same woods. It was situated on a level piece of ground, under a bunch of ferns, and near a stream of water. Both these sets were perfectly fresh.

On the next day (May 23d) I found two more sets of three and four eggs respectively. Each of these nests contained a Cowbird's egg. They were both in the same woods within twenty-five or thirty yards of each other. Each of them was near a stream of water and towards the centre of the woods.

This Warbler does not seem to have the same fondness for building its nest in or near the edge of woods that other Warblers in this neighborhood seem to have. Another nest was found on the 2d of June containing the unusual number of six eggs. It was placed on the ground near a stream of water like nearly all the others.

My last nest was found on the 3d of June, and contained young birds.

My younger brother, Henry Norris, also found two nests, one of which taken on June 1st contained three eggs and a Cowbird's (unfortunately too much incubated to be preserved) and another on June 7th containing young birds. Both of these nests were on hillsides in the woods.

So far I have had more difficulty in finding nests of the Golden-crowned Thrush than of the Kentucky Warbler although the former is much the commoner bird. The principal difficulty in finding the nest is the fact of their being domed over, and looking so much like a bunch of dried grass; while the Warbler's nest being open at the top makes it easier to discover.

The time to look for their eggs in this locality seems to be from the 20th of May to the 1st of June, and it is hard to say exactly what kind of a woods they prefer, but a level spot near a stream of water where the ground is covered with ferns, etc., is about as good as any.

In conclusion I would remark that in my opinion the eggs of this bird are among the prettiest of the Warbler's, and it is well worth the collector's time to obtain a series of them as nearly every set is different.

J. P. Norris, Jr.

Philadelphia, Penn.

THE
ORNITHOLOGIST^{AND} OÖLOGIST

A Monthly Magazine of
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ESPECIALLY DEVOTED TO THE STUDY OF
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THEIR NESTS AND EGGS,
and to the
INTERESTS OF NATURALISTS.

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Editorial.

Plain English.

In the future we shall drop the scientific names, using only the best common names and the A. O. U. numbers except in exceptional cases. We believe this course will save much valuable space. This putting into execution an old threat will no doubt cause intense suffering on the part of a few; we weep for them; but it is better that a few should suffer for the good of many. We suggest to some of our friends who have found such relief in the shortening of a few common names with which they were familiar from the time they could first lisp, if they will follow our example and let up on the Latin names, whose mutilated corpses so belabor their communications, they will find still more relief and show less evidence of an uphill struggle.

The numbers given by the A. O. U. mean something or nothing, and at least for the present we will make the most of them.

Brief Notes.

A number who delayed sending for Capen's Oology until after the time for the advance in price may congratulate themselves on getting it at all. Those who have obtained it from us received the benefit of a special arrangement, the regular price being \$15.

Harry Gordon White, of the U. S. Fish Commission, Woods Holl, Mass, is engaged in the study of the morphology of the head in the Sternidae, and would be pleased to correspond with any person having embryological material for exchange. The later stages of embryos of sea-birds and reptiles are particularly desired.

We still have some copies of Davies' work, and continue the offer of June. This opportunity to obtain a work so useful to ornithologists, at cost price, should not be overlooked.

During the Grand Army parade in this city on the 12th, while passing our office, which took them over five hours, a little English Sparrow, who had a nest on an opposite window, continued her maternal duties, quite oblivious of the stir below.

On the same occasion the City Hall had in quite a prominent position a large brassy eagle, decorated with a vermilion beak. The design must have been suggested by the beaks of many of the officials.

A. W. Purcell, of Halifax, Nova Scotia, has received from the Rocky Mountains two heads of the Rocky Mountain Goat and one of the Sheep, which will on exhibition prove to be the largest specimens ever shown to the Lower Provinces, if not to the Upper Canadas, from the Rockies. "Anon," Halifax.

One of the new signs on our Museum building is a reproduction in colors of the Fish Hawk on our cover page. We were a little chagrined as well as amused a few mornings since in overhearing a conversation between two sisters from the Emerald Isle, in which one explained it to the other as "Sure and it wuz th Carrier Pigeon with th' mail."

While on a fishing excursion down the Susquehanna I saw a beautiful pair of Bald Eagles between Wyalusing and Saceyville. They probably breed there, as I have seen them in that vicinity for the last three years. I failed to get a shot at them. I also saw what I supposed to be two young Eagles; they were of a uniform dark color and very large. Screech Owls were plenty at night. Noticed one ♀ Wood Duck. Green Heron very common, and a few Mourning Doves. C. W. Kucker, Athens, Pa.

A few days since one of our snakes succeeded in getting out. As we do not wish to be accused of any fancy snake stories we will merely deal out from the Boston Globe.

SNAKE DIDN'T RAIN DOWN.—WASHINGTON STREET PASSERS ALARMED AND AMUSED.—The unexpected appearance of a healthy looking black snake upon the pavement in front of 395 Washington street, immediately after this morning's heavy shower, caused for a time no little speculation and alarm to a good-sized crowd of spectators.

The swiftly falling raindrops, driven by the brisk wind at a slant of 40 degrees, kept the attention of most pedestrians busily fixed upon their umbrellas, and but for a leaky pair of shoes upon a very tall man carrying a very small umbrella, his snakeship would most likely have been trod on.

The tall stranger with the perforated cowhides was seen to look down carefully on the pavement, as if to avoid a puddle, and then suddenly halt. An agonized look spread over his face, then he uttered a good war-whoop of the first-class, at the same time flinging his umbrella to the winds and leaping a good three feet into the air.

When he came down his feet were fully four feet apart, and he continued yelling like an Indian.

A woman started to run out to where the seeming demented stranger stood like the famous Colossus of Rhodes vitalized.

She had scarcely gotten two feet when she gave a series of falsetto shrieks, and her male companions in the doorway had just time to grab her when she fainted.

It was then that they first spied the snake lying wriggling in the puddle, which he of the good lungs and leaky shoes had tried to avoid.

Their cries of astonishment soon brought a crowd to the scene, and in five minutes the stores for a block were vacated by their occupants, who crowded about the reptile on the ground.

All sorts of conjectures as to his appearance were made, and one man stubbornly asserted that he saw him come down in the rain, and caused a feeling of general alarm by intimating that if they would look about them doubtless many more would be found.

All this time, regardless of his spectators, the snake lay wriggling in the water, and showed such non-combative intentions that the crowd grew emboldened.

An ambitious young man hurried nearly a block away and returned immediately, groaning under a heavy plank which he held over the reptile, awaiting the word to drop it.

The missile was about to fall when a stern voice shouting to him to desist, caused him to pause.

A man forced his way through the crowd, seized the plank, and threw it to one side, and, stooping down, picked up the snake, which he dropped carelessly into his coat pocket, looking daggers all the while at the would-be executioner.

The crowd followed him, and, seeing him enter No. 409, read with interest the legend over the door, which recited that a dealer in animals lived there.

Later on the dealer said the snake unnoticed had gotten out of his cage, and attracted by the damp outside had stolen down stairs. He was of the black-snake type, and perfectly harmless.

The sole remaining feature of interest was the general amusement created when the young man who had fetched the scantling attempted to walk away unnoticed, leaving his lumber to obstruct the sidewalk, when the police overhauled him and compelled him to lug it back to where he found it.—[Boston Globe.

It is quite positive that birds will be worn in increased quantity this fall. What a lasting effect the late crusade had.

We have just received a few eggs of the Man-o'-war Bird, taken off the coast of British Honduras. Eggs of this bird have been scarce in the past. The collector writes that in all his observation he has seen no indication of more than one egg in a nest.

Oliver Davie writes that he will mail copies of five plates of the new work on Taxidermy to each subscriber. Those who have subscribed through us will receive them from him direct. Mr. Davie has up to date received about one half the subscriptions necessary to warrant its publication, and we earnestly urge those who are interested to send in their names at once. We shall shortly receive copies of the plates and will send them to any who desire to subscribe. We require a deposit of one dollar on subscriptions sent to us as we guarantee every subscription we forward to him, and surely any of our subscribers can see that the course we pursue is but fair. In case the work is not published, we will refund the deposit; but there is little chance of such a termination. Again we ask you

to help Mr. Davie in this undertaking, and you have our word that you will be repaid.

REMEDY FOR INSECT BITES.—A sure remedy for the bites of insects is something for which there is the greatest demand, and it would prove an inestimable boon to man. Among the most recent suggestions we find the following: Powdered ipecacuanha, one half an ounce; alcohol and sulphuric ether, each one half an ounce. It is said that when a person sponges this mixture on to the skin, he can bid defiance to mosquitos and other insects so troublesome in warm weather.

In Vol. XII, Part 1, Transactions of Kansas Academy of Science, Col. N. S. Goss adds to the list of Kansas Birds the Frosted Poor-will (A. O. U. 418a) and the Little Brown Crane (A. O. U. 205).

An adult ♂ Red-throated Diver in full spring plumage was shot at Cohasset Narrows by Vinal Edwards, collector for this station, on July 2. The bird was not a cripple in any way, as is often the case with Sea Fowl which remain through the summer. On the following day an adult Black-backed Gull was seen. Harry Gordon White, Woods Holl, Mass.

Correspondence.

Editor of O. & O.:

Am down here collecting mammals for the U. S. Dept. of Agriculture. Haven't done great things yet, but have got a few curiosities. Caught one skunk, a beautiful specimen of the Little Striped species (*Spilogale*), but let me assure you his smell was solid color all the way through, no stripes on that. Have also got a number of queer bats with long tails projecting beyond the flying membrane, and broad ears, the bases meeting over the forehead.

Of course I have had no time to collect birds, but I cannot help noticing those I come across. Bachman's Sparrows are tolerably common in old fields. Of Kentucky Warblers I saw more in one day than I had ever taken at Raleigh. Red-headed Woodpeckers and Blue Jays are common, Loggerhead Shrikes by no means scarce. I found a nest of Blue Grosbeaks, August 2d, with the eggs (two) just hatching, and another, August 6th, with a big, young one and two addled eggs; have also come across several fresh nests of the Cardinal, one with three eggs in it.

Have had the pleasure of seeing a dead rattlesnake sixty-one inches long by the foot rule, and thick—well, words can't express his thickness, and being a truthful man I won't say, as I didn't measure his girth.

C. S. Brimley.

P. S. Mr. Hoxie says a Pole-cat's "effects" don't stay with one down in Florida. Well, the said P. C.'s "effects" are "effective" enough here.

C. S. B.

Greensboro, Ala., Aug. 6, 1890.

SEPTEMBER, 1890.

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Vol. XV.

BOSTON, MASS., SEPTEMBER, 1890.

No. 9.

A List of the Birds of Minnesota.

In presenting this list it has been the writer's intention to make it thoroughly reliable, and with the kind assistance of others as complete as possible. No species is entered on the list except on good authority. Many which doubtless occur, are omitted on account of not having been actually observed. As the collectors, in the future, visit the sections that are at present unopened many additions will be made.

The material for this list is from notes taken during six years' field collecting in the vicinity of Minneapolis, from 1883 till 1889, during which time trips were frequently made to Lake Minnetonka, fifteen miles distant, which offered quite a different fauna of bird life; also a trip to the southwestern prairie regions in Lacqui-parle County which occupied the last three weeks in May, 1889, a locality little known and rich in bird life,—from the "Notes upon Summer Birds of Grant and Traverse Counties," taken in June, 1879, by Dr. Thomas S. Roberts and Mr. Franklin Benner, both counties in the prairie regions of the northwest; from notes on the "Birds of St. Louis and Lake Counties," by Dr. T. S. Roberts, in 1879, from July 26th till September 2d. The two counties form a triangle which projects eastward from the northern half of the state, between Lake Superior and the British possessions,—from "A List of the Birds of Minnesota," by Dr. P. L. Hatch, in 1880, published by the State Geological and Natural History Survey, and from the notes of the following ornithologists: Dr. J. C. Hvoslef, Lanesboro; C. B. Johnson, Redwing; Frank Harris, La Crescent, and Thomas Miller, Heron Lake, for the use of which I am greatly indebted. I am also deeply indebted to Prof. Robert Ridgway, whose name is familiar to every bird lover in the country (how could we get along without him?), always so kind and willing to aid all in his favorite study, and to Dr. T. S. Roberts of Minneapolis, by

whose personal acquaintance I have been benefited in many ways.

The present list contains 295 species and sub-species, and while I realize that it may not be complete it will at least serve as a foundation to build upon, and if it meets the approval of those for whose use it is intended, I shall feel amply repaid for my trouble.

1. *Colymbus holboëllii*. American Red-necked Grebe. Rather scarce. Has been observed by Dr. T. S. Roberts in northern Minnesota,* and also by Mr. C. B. Johnson of Redwing. (The Western Grebe, *Acmophorus occidentalis*, probably occurs in the state, but I can find no record of such.)

2. *Colymbus auritus*. Horned Grebe. Very abundant during the migrations. Does not remain to breed.

3. *Podilymbus podiceps*. Pied-billed Grebe. An abundant summer resident.

4. *Urinator imber*. Loon. Common summer resident.

5. *Rissa tridactyla*. Kittiwake. Stragglers are occasionally met with in different parts of the state. (Entered on the authority of Dr. P. L. Hatch.)

6. *Larus argentatus smithsonianus*. American Herring Gull. Found during the migrations on the larger lakes.

7. *Larus delawarensis*. Ring-billed Gull. The most abundant of the large gulls; breeds.

8. *Larus franklinii*. Franklin's Gull. An abundant summer resident in the prairie regions of the state.

9. *Larus philadelphia*. Bonaparte's Gull. Common. Seen during migrations only.

10. *Sterna tschegrya*. Caspian Tern. Rare. Several have been taken in the state, one of which is in the collection of University of Minnesota.

11. *Sterna forsteri*. Forster's Tern. Common during migrations.

* Auk, April, 1890, page 213.

12. *Sterna hirundo*. Common Tern. Also common. A few breed.

13. *Sterna antillarum*. Least Tern. Quite rare. Have observed it at Minneapolis and on Lake Minnetonka.

14. *Hydrochelidon nigra surinamensis*. Black Tern. An abundant summer resident.

15. *Phalacrocorax dilophus*. Double-crested Cormorant. Rare, except at Lake Minnetonka, where a large colony nest in a heronry on "Crane Island."

16. *Pelecanus erythrorhynchus*. White Pelican. Common. Breeds in western part of the state.

17. *Merganser americanus*. American Merganser. This species and the next are rather rare and of local occurrence.

18. *Merganser serrator*. Red-breasted Merganser.

19. *Lophodytes cucullatus*. Hooded Merganser. Abundant during migrations.

20. *Anas boschas*. Mallard. Common.

21. *Anas obscura*. Dusky Duck. Rare. Has been taken near Minneapolis, also on Lake Minnetonka by Albert Lano.

22. *Anas strepera*. Gadwall. Not common.

23. *Anas americana*. American Widgeon. Not common.

24. *Anas carolinensis*. Green-winged Teal. Common.

25. *Anas discors*. Blue-winged Teal. Common. Breeds.

26. *Anas cyanoptera*. Cinnamon Teal. Very rare. One was captured on Bigstone Lake in 1880.

27. *Spatula clypeata*. Shoveller. Common. Breeds.

28. *Dafila acuta*. Pintail. Common. Breeds.

29. *Aix sponsa*. Wood Duck. Common. Breeds.

30. *Aythya americana*. Redhead. Common. Breeds.

31. *Aythya vallisneria*. Canvas-back. Not common. Confined principally to the west where it breeds.

32. *Aythya marila neartica*. Scaup Duck. This and the following species are generally found together. Both are common and breed.

33. *Aythya affinis*. Lesser Scaup Duck.

34. *Aythya collaris*. Ring-neck Duck. Very common during migrations. A few remain to breed.

35. *Glaucionetta clangula americana*. American Golden-eye. Rare. Occurs on Lake Minnetonka.

36. *Glaucionetta islandica*. Barrow's Golden-eye. Also rare. Occurs principally during winter wherever there is open water.

37. *Clangula hyemalis*. Long-tailed Duck. Rare. Occurs on Lake Superior during the winter.

38. *Edemia americana*. American Velvet Scoter. This species has been observed by Mr. T. S. Roberts on several occasions in the Mississippi River, below Minneapolis.

39. *Edemia deglandi*. White-winged Scoter. Rare. Reported by Mr. Thos. Miller from Heron Lake.

40. *Edemia perspicillata*. Surf Duck. Not rare. Have taken several on Lake Minnetonka.

41. *Erismatura rubida*. Ruddy Duck. Common.

42. *Chen hyperborea*. Snow Goose. Abundant during migrations, especially in the west.

43. *Chen caerulescens*. Blue Goose. Common in western part of the state.

44. *Anser albifrons gambeli*. American White-fronted Goose. Rare. Mr. J. C. Hvoslef reports this species from Lanesboro, April 3, 1883—November 5, 1884.

45. *Branta canadensis*. Canada Goose. Abundant.

46. *Branta canadensis var. hutchinsii*. Not so common.

47. *Branta bernicla*. Common Brant. Common during migrations, especially in the west.

48. *Olor columbienus*. Whistling Swan. Rare.

49. *Olor buccinator*. Trumpeter Swan. More common than the foregoing; "breeds on the Red River." Hatch.

50. *Botaurus lentiginosus*. American Bittern. An abundant summer resident.

51. *Botaurus exilis*. Least Bittern. Also a common summer resident.

52. *Ardea herodias*. Great Blue Heron. Common. There is a large heronry of this species at Lake Minnetonka.

53. *Ardea egretta*. American Egret. Rare. Mr. Hvoslef reports the species from Lanesboro. He says, "One stayed here from July 21st till the 23d, 1884. A few years earlier two more were seen and one of them was shot."

54. *Ardea virescens*. Green Heron. Not very common.

55. *Nycticorax nycticorax naevius*. Black-crowned Night Heron. Rare. More plentiful in the prairie regions.

56. *Grus americana*. Whooping Crane. A prairie bird, wild and wary. Breeds.

57. *Grus mexicana*. Sandhill Crane. More common than the foregoing. Breeds.

58. *Rallus elegans*. Red-breasted Rail. Quite rare. Have seen it but on few occasions. Breeds.

59. *Rallus virginianus*. Virginia Rail. Quite common. Breeds.

60. *Porzana carolina*. Sora Rail. Very abundant. Breeds. Raises two broods a year.

61. *Porzana noveboracensis*. Yellow Rail. Rare. Mr. Hvoslef took one at Lanesboro on September 1, 1886.

62. *Gallinula galeata*. Common Gallinule. Common. Breeds.

63. *Fulica americana*. American Coot. Very abundant.

64. *Crymophilus fulicarius*. Red Phalarope. Reported by Mr. Hatch as "rare." It must be,—a straggler probably.

65. *Phalaropus lobatus*. Northern Phalarope. Rare. Seen principally during the fall migration.

66. *Phalaropus tricolor*. Wilson's Phalarope. Common in suitable localities. Breeds.

67. *Recurvirostra americana*. American Avocet. Rather rare. Found only on the prairies.

68. *Philohela minor*. American Woodcock. Common. Breeds.

69. *Gallinago delicata*. Wilson's Snipe. Common. Breeds.

70. *Macrorhamphus scolopaceus*. Long-billed Dowitcher. Not very common. Both varieties of the Dowitcher may occur in the state, but so far I have identified but *scolopaceus*.

71. *Micropalama himantopus*. Stilt Sandpiper. Mr. Hvoslef has taken this species at Lanesboro, August 20, 1885.

72. *Tringa canutus*. Knot. Very rare. Has been taken at Lanesboro on one occasion by Mr. Hvoslef.

73. *Tringa maculata*. Pectoral Sandpiper. Common during migrations.

74. *Tringa fuscicollis*. White-rumped Sandpiper. On May, 1889, I found this species very plentiful in Lacquiparle County. It had hitherto been unknown in the state and it seemed strange that a bird so common there could have escaped notice so long.

75. *Tringa bairdii*. Baird's Sandpiper. Not common. Observed most frequently during the fall migration.

76. *Tringa minutilla*. Least Sandpiper. Common during migrations.

77. *Tringa alpina pacifica*. Red-backed Sandpiper. Rare in vicinity of Minneapolis, but I found it abundant in May in Lacquiparle County.

78. *Ereunetes pusillus*. Semipalmated Sandpiper. The most plentiful of the little Sandpipers.

79. *Calidris arenaria*. Sanderling. Very rare. Has been taken by Mr. T. S. Roberts.

80. *Limosa fœda*. Great Marbled Godwit. A common bird of the prairies.

81. *Limosa hæmastica*. Hudsonian Godwit. This godwit I met for the first time in Lacquiparle County in May, where it was fairly common, but not so plentiful as the Marbled Godwit.

82. *Totanus melanoleucus*. Greater Yellow-legs.

83. *Totanus flavipes*. Lesser Yellow-legs. Both the above are fairly common and not necessarily confined to the prairies like most of the waders.

84. *Totanus solitarius*. Solitary Sandpiper. Everywhere abundant. One of the first of the sandpipers to appear in the migrations.

85. *Symphemia semipalmata inornata*. Western Willet. According to the best authorities this is the form of the willet found in the state. Very common in the west where it breeds.

86. *Bartramia longicauda*. Bartramian Sandpiper, "Field Plover." Common. Breeds throughout the state.

87. *Tryngites subruficollis*. Buff-breasted Sandpiper. Rare in vicinity of Minneapolis. Found them fairly common in Lacquiparle County.

88. *Actitis macularia*. Spotted Sandpiper. Common summer resident.

89. *Numenius longirostris*. Long-billed Curlew. Not common. Breeds.

90. *Numenius hudsonicus*. Hudsonian Curlew. Rarest of the curlews, but frequently seen at Heron Lake.

91. *Numenius borealis*. Eskimo Curlew. Commonest of the curlews. Seen only during migration.

92. *Charadrius squatarola*. Black-bellied Plover. Not very common. Seen in migration in company with the next.

93. *Charadrius dominicus*. American Golden Plover. A common bird of the prairies. Does not breed in the state to my knowledge.

94. *Ægialitis vocifera*. Killdeer. Abundant summer resident.

95. *Ægialitis semipalmata*. Semipalmated Ring Plover. Fairly common.

96. *Arenaria interpres*. Turnstone. Rare. Has been taken by Albert Lano on Lake Minnetonka and by myself in Lacquiparle County.

97. *Colinus virginianus*. Bob-white. As yet not very common in the state.
98. *Dendragapus canadensis*. Canada Grouse. Found commonly among the pine timber in the northern part of the state where it breeds.
99. *Bonasa umbellus*. Ruffed Grouse. Common. A constant resident.
100. *Lagopus lagopus*. Willow Ptarmigan. Very rare now and confined to the northern border of the state.
101. *Tympanuchus americanus*. Prairie Hen. Common, especially on the prairies. A few remain throughout the winter in the vicinity of Minneapolis, where they feed on wheat from the railroad tracks.
102. *Pediæcetes phasianellus campestris*. Prairie Sharp-tailed Grouse. Not so common as the Prairie Hen, and confined principally to the northwestern part of the state.
103. *Meleagris gallopavo*. Wild Turkey. It is with doubt that I give this bird a place in the list. I fear the "noblest of all game birds" has been exterminated in the state, as no one seems to have observed it of late.
104. *Ectopistes migratorius*. Wild Pigeon. Another bird that has rapidly diminished in number of late years. They are now very rare where once they were abundant but a few years ago.
105. *Zenaidura macroura*. Mourning Dove. Common summer resident.
106. *Cathartes aura*. Turkey Buzzard. Rather rare. A few breed at Lake Minnetonka every year.
107. *Elanoides forficatus*. Swallow-tailed Kite. Not common, but a summer resident.
108. *Circus hudsonius*. Marsh Harrier. A common summer resident.
109. *Accipiter velox*. Sharp-shinned Hawk. Very common during migrations. Does not breed in vicinity of Minneapolis.
110. *Accipiter cooperi*. Cooper's Hawk. Common summer resident.
111. *Accipiter atricapillus*. American Goshawk. Not common. Seen during fall and winter months.
112. *Buteo borealis*. Red-tailed Hawk. Not very common. Breeds.
113. *Buteo borealis kriderii*. Krider's Red-tail. A bird of the prairies. I found it breeding in Lacquiparle County in May.
114. *Buteo lineatus*. Red-shouldered Hawk. Rare. Have seen two specimens that were shot near the eastern border of the state in 1886.
115. *Buteo swainsoni*. Swainson's Hawk. Quite common during migrations, and occasionally nests near Minneapolis.
116. *Buteo latissimus*. Broad-winged Hawk. The most abundant of all the hawks. A summer resident. In Lacquiparle County, on May 20th, I found a young, immature plumaged bird mated with an adult and breeding, thus proving that at least some of the birds do not assume complete plumage the first year. It was too early in the season for a full-grown bird, as they never nest earlier than the first of May. It was simply a bird of the previous year that had not acquired full plumage, and is the only one of the kind I ever met in the spring.
117. *Archibuteo lagopus sancti johannis*. American Rough-legged Hawk. Not common. Seen during migrations and occasionally in winter.
118. *Aquila chrysaetos*. Golden Eagle. Rare. Of irregular occurrence. Has been taken in Grand Marais County in the fall of 1877. Mr. Hvoself says it occurs now and then at Lanesboro. Have not observed it at Minneapolis.
119. *Haliaetus leucocephalus*. Bald Eagle. Not at all common, but much more frequently observed than the preceding. A pair have nested for years at Lake Minnetonka until one of the birds was killed a few years ago, the nest not having been used since.
120. *Falco rusticolus obsoletus*. Black Gyr-falcon. Rare. "Has been taken in Minnesota a few times as a rare winter visitant. A specimen has been examined by Mr. Ridgway."*
121. *Falco peregrinus anatum*. Peregrine Falcon. Frequently seen during migrations. Breeds in certain parts of the state.
122. *Falco columbarius*. Pigeon Hawk. Rather rare migrant.
123. *Falco richardsonii*. Richardson's Merlin. Rare. Confined to the prairies. I observed it twice in Lacquiparle County in May.
124. *Falco sparverius*. Sparrow Hawk. Common during migrations. A few remain to breed.
125. *Pandion haliaetus carolinensis*. Osprey. Rather scarce. Occasionally seen on Lake Minnetonka.
126. *Strix pratincola*. American Barn Owl. Very rare. Mr. Hatch says "several have been obtained by collectors." Have not observed it myself.
127. *Asio wilsonianus*. Long-eared Owl.

* Report on Bird Migration in the Mississippi Valley.

The most abundant of the Owls. A constant resident. Nests principally in tamaracs.

128. *Asio accipitrinus*. Short-eared Owl. Not common. Found mostly on the prairies.

129. *Syrnium nebulosum*. Barred Owl. Not common. Have not found it breeding. More plentiful some years than others.

130. *Scotiapterx cinerea*. Great Gray Owl. A rare winter visitor.

131. *Nyctale tengmalmi richardsoni*. Richardson's Owl. Rare. Winter visitor. Have taken it once and know of two others. Both from the western part of the state.

132. *Nyctale acadica*. Acadian Owl. Rare. Have known it to nest on two occasions near Minneapolis.

133. *Megascops asio*. Screech Owl. Not common, at least in the vicinity of Minneapolis. Breeds.

134. *Bubo virginianus*. Great Horned Owl. Resident. Not common. (This Owl exhibits great variation in plumage, some very dark, others very light, and probably with good material some of its varieties may be found such as *Arcticus* or *subarcticus*, but so far have been unable to decide with certainty.)

135. *Nyctea nyctea*. Snowy Owl. A rare winter visitor. More common on the prairies.

136. *Surnia ulula caparoch*. American Hawk Owl. Rare. Found during fall and winter only. Has been taken near Minneapolis.

137. *Speotyto cunicularia hypogæa*. Burrowing Owl. This species has been taken by Dr. T. S. Roberts on July 19, 1881, in the southwestern part of Swift County, which is in the prairie regions of the state.* He says they were "living in fox or badger dens in a prairie hillside. There were apparently not more than two pairs of old birds with the young of the year. One of the young birds was shot and the skin preserved."

138. *Coccyzus americanus*. Yellow-billed Cuckoo. Common, but not so plentiful as the next.

139. *Coccyzus erythrophthalmus*. Black-billed Cuckoo. Common summer resident.

140. *Ceryle alcyon*. Belted Kingfisher. Common summer resident.

141. *Dryobates villosus*. Hairy Woodpecker. Common during fall and winter. A few breed at Lake Minnetonka.

142. *Dryobates pubescens*. Downy Woodpecker. More common than the preceding; breeds.

143. *Picoides arcticus*. Black-backed three-toed Woodpecker. Rare. Have collected but two near Minneapolis. More plentiful in the pine timber in the northern part, where it breeds.

144. *Sphyrapicus varius*. Yellow-bellied Sapsucker. Common during migrations. Many remain to breed.

145. *Ceophloeus pileatus*. Pileated Woodpecker. Rare near Minneapolis, where I have observed it but twice, but more common to the north.

146. *Melanerpes erythrocephalus*. Red-headed Woodpecker. Common summer resident. A few sometimes remain all winter.

147. *Colaptes auratus*. Yellow-shafted Flicker. Common summer resident.

148. *Antrostomus vociferus*. Whip-poor-will. A fairly common summer resident.

149. *Chordeiles virginianus*. Night Hawk. Common summer resident.

150. *Chordeiles virginianus henryi*. Western Nighthawk. This form seems to be the only one found in the western part, and are about as common at Minneapolis as *virginianus*, which is the form that breeds there; *henryi* was the one breeding in Lacquiparle County.

151. *Chætura pelasgica*. Chimney Swift. Common summer resident.

152. *Trochilus colubris*. Ruby-throated Hummingbird. Fairly represented. Breeds.

153. *Tyrannus tyrannus*. Kingbird. Abundant throughout the state.

154. *Tyrannus verticalis*. Western Kingbird. Rare, and confined to the prairies. Mr. Roberts found it in Traverse County in 1879. I also found the species in Lacquiparle County in 1889.

155. *Myiarchus crinitus*. Crested Flycatcher. Not very common, but breeds.

156. *Sayornis phæbe*. Phæbe. Abundant summer resident.

157. *Contopus borealis*. Olive-sided Flycatcher. Seen during migrations. Not very common. A few remain to breed.

158. *Contopus virens*. Wood Pewee. Abundant summer resident.

159. *Empidonax flaviventris*. Yellow-bellied Flycatcher. A migrant. Not common.

160. *Empidonax pusillus traillii*. Traill's Flycatcher. Rare. Have taken it but once. More common to the south.

161. *Empidonax minimus*. Least Flycatcher. Abundant summer resident.

162. *Otocoris alpestris praticola*. Prairie Horned Lark. Abundant summer resident.

* Auk, April, 1890, page 213.

Arrives by last of February. Breeds during the freezing weather of March.

163. *Cyanocitta cristata*. Blue Jay. Very common. A constant resident.

164. *Perisoreus canadensis*. Canada Jay. Common in the pine timber of the north, where it is known as "Whiskey Jack." Has been taken as far south as Wadena County.

165. *Corvus corax principalis*. American Raven. A common bird of the pineries where they breed.

166. *Corvus americanus*. American Crow. Abundant. A few remain during the winter in the tamarac swamps.

167. *Dolichonyx orizivorus*. Bobolink. A common summer resident.

168. *Molothrus ater*. Cowbird. Common summer resident.

169. *Xanthocephalus xanthocephalus*. Yellow-headed Blackbird. Common summer resident. Breeds in large colonies.

170. *Agelaius phoeniceus*. Red-winged Blackbird. Common summer resident.

171. *Sturnella magna*. Meadow Lark.

172. *Sturnella magna neglecta*. Western Meadow Lark. These two forms occur commonly in the state; *magna* found principally in the east and in wooded sections; *neglecta* is a bird of the prairies and the only form observed in Lacquiparle County. Both occur in about equal proportions at Minneapolis and are readily distinguished by song and color.

173. *Icterus spurius*. Orchard Oriole. Not common. Breeds. Has a queer trait of invariably nesting in same tree with a Kingbird. Have never heard of one otherwise and have examined over a dozen nests. The two birds appear to agree perfectly, and aid each other in beating off a common enemy.

174. *Icterus galbula*. Baltimore Oriole. Common summer resident.

175. *Scolecophagus carolinus*. Rusty Grackle. Very abundant during migrations.

176. *Scolecophagus cyanocephalus*. Brewer's Grackle. Rather rare. Found in company with the preceding species. "Breeds in considerable numbers in the Red River," Hatch.

177. *Quiscalus quiscula aeneus*. Bronzed Grackle. Common summer resident.

178. *Coccothraustes vespertina*. Evening Grosbeak. A common winter visitor, appearing about December and remaining till May, irregular in its appearance, however. Common some years and rare or absent on others. Very tame and unsuspicious. Feeds on the seeds of the sugar maple and box-elder.

179. *Pinicola enucleator*. Pine Grosbeak.

Winter visitor. Very irregular. Very few in the red plumage observed.

180. *Carpodacus purpureus*. Purple Finch. Abundant during migrations, but does not breed near Minneapolis.

181. *Carpodacus mexicanus frontalis*. House Finch. A very rare straggler, a male of which was shot at Minneapolis in the spring of 1876 by Mr. Robert McMillan, and is now in his collection.

182. *Loxia curvirostra minor*. Red Crossbill. Winter visitor, of irregular occurrence.

183. *Loxia leucoptera*. White-winged Crossbill. Winter visitor, but not so often met with as the former.

184. *Leucosticte tephrocotis littoralis*. Gray-cheeked Rosy Finch. A rare straggler, a male of which was taken at Minneapolis by Mr. Fred Cook, on January 3, 1889. It was in company with Snow Buntings and the only one observed.

185. *Acanthis linaria*. Lesser Redpoll. A common winter visitor.

186. *Acanthis linaria rostrata*. Greater Redpoll. Very rare. The first collector to take this bird in Minnesota was Mr. Fred Cook at Minneapolis, securing a male from a small flock on February 19, 1890, and again on March 3, 1890, three more, two females and one male, were secured from a flock of the common Redpolls (*A. linaria*).

187. *Spinus tristis*. American Goldfinch. A common resident.

188. *Spinus pinus*. Pine Siskin. Not a very common winter visitor.

189. *Plectrophanes nivalis*. Snow Bunting. Common winter visitor. Mr. Roberts took one in May, 1875, that had assumed the black and white breeding dress.

190. *Calcarius lapponicus*. Lapland Longspur. A rare winter visitor to Minneapolis, but a summer resident in Lacquiparle County.

191. *Calcarius pictus*. Smith's Longspur. Rare, but identified from different parts of the state. Not known to breed.

192. *Calcarius ornatus*. Chestnut collared Longspur. An abundant summer resident of the prairies, where it breeds in profusion.

193. *Rhynchophanes mccownii*. McCown's Longspur. Very rare. I took one, a male, on May 16, 1889, in Lacquiparle County, which appears to be the only record for the state.

194. *Poæetes gramineus*. Grass Finch. Abundant summer resident.

195. *Poæetes gramineus confinis*. Western Grass Finch. This form has been identified

from the dry prairie regions of the state, as in Traverse and Lacquiparle Counties.

196. *Ammodramus sandwichensis savanna*. Savannah Sparrow. Not as common as many other sparrows, but breeds.

197. *Ammodramus sandwichensis alaudinus*. Western Savannah Sparrow. Confined to the prairies where they are abundant.

198. *Ammodramus bairdii*. Baird's Savannah Sparrow. Common in some parts of the west where it breeds. Not known at Minneapolis. It is, however, recorded from White Earth by Dr. C. P. Allen.

199. *Ammodramus savannarum passerinus*. Yellow-winged Sparrow. Rare in the vicinity of Minneapolis, but more common to the south.

200. *Ammodramus henslowii*. Henslow's Sparrow. Rare. Has been taken at Minneapolis June 16, 1880, by Mr. Roberts, and by Mr. W. W. Eager in Grant County, June 25, 1880. Breeds.*

201. *Ammodramus lecontei*. Leconte's Sparrow. Not common. Found in grassy places.

202. *Ammodramus caudacutus nelsoni*. Nelson's Sharp-tailed Finch. Very rare. One specimen, a ♀, was taken in Lacquiparle County by myself on May 23, 1889, was alone on the edge of a marsh and was first mistaken for a Leconte's Sparrow. A very careful search failed to find any more of this species.

203. *Chondestes grammacus*. Lark Finch. Common summer resident.

204. *Zonotrichia querula*. Harris' Sparrow. This handsome sparrow is quite common during the migrations.

205. *Zonotrichia leucophrys*. White-crowned Sparrow. Migrant. Not very common.

206. *Zonotrichia intermedia*. Intermediate Sparrow. This variety is found in company with the last, but not so common.

207. *Zonotrichia albicollis*. White-throated Sparrow. An abundant migrant.

208. *Spizella monticola*. Tree Sparrow. Abundant migrant. A few remain all winter.

209. *Spizella socialis*. Chipping Sparrow. Common summer resident.

210. *Spizella pallida*. Clay-colored Sparrow. Common summer resident. Breeds in weedy places.

211. *Spizella pusilla*. Field Sparrow. Rare about Minneapolis, but breeds.

212. *Junco hyemalis*. Black Junco. Abundant migrant. Breeds commonly about Brainerd.

213. *Junco hyemalis oregonus*. Oregon

Junco. Mr. Roberts has taken this bird once at Minneapolis.

214. *Melospiza fasciata*. Song Sparrow. Abundant summer resident.

215. *Melospiza lincolni*. Lincoln's Sparrow. A common migrant. Not as well known as it might be.

216. *Melospiza georgiana*. Swamp Sparrow. A common summer resident.

217. *Passerella iliaca*. Fox Sparrow. Common migrant.

218. *Pipilo erythrophthalmus*. Towhee. Fairly common summer resident.

219. *Cardinalis cardinalis*. Cardinal. A male in perfect plumage has been taken by Mr. Roberts near Minneapolis. Mr. Hatch also says "it has been obtained in pairs."

220. *Habia ludoviciana*. Rose-breasted Grosbeak. A common summer resident.

221. *Passerina cyanea*. Indigo Bunting. Common summer resident.

222. *Spiza americana*. Black-throated Bunting. Summer resident. Common some years, scarce others.

223. *Calamospiza melanocorys*. Lark Bunting. Not common. A bird of the prairies. Observed in Traverse and Lacquiparle Counties.

224. *Pyranga erythromelas*. Scarlet Tanager. Common summer resident.

225. *Progne subis*. Purple Martin. Common summer resident.

226. *Petrochelidon lunifrons*. Cliff Swallow. Common summer resident.

227. *Chelidon erythrogaster*. Barn Swallow. Not common. Do not nest in colonies like the last.

228. *Tachycineta bicolor*. White-bellied Swallow. Common summer resident.

229. *Clivicola riparia*. Bank Swallow. Common summer resident.

230. *Stelgidopteryx serripennis*. Rough-winged Swallow. Not so common as the last. Breeds.

231. *Ampelis garrulus*. Bohemian Waxwing. Common winter visitor, but irregular in its occurrence. Feeds on mountain ash berries, apples, etc. Does not arrive till late in the winter and departs in April. An exception was one taken by myself at Minneapolis on October 9, 1888.

232. *Ampelis cedrorum*. Cedar Waxwing. Common summer resident.

233. *Lanius borealis*. Northern Shrike. Winter and spring visitor. Fairly common. Does not breed.

234. *Lanius ludovicianus*. Loggerhead Shrike.

* Auk, April, 1890, page 213.

235. *Lanius ludovicianus excubitorides*. White-rumped Shrike. Not knowing just what position our shrikes held, I decided to submit the question to Prof. Ridgway, and sent him a small series for examination. He wrote me, "None of your shrikes are typical of either *ludovicianus* or *excubitorides*, all being intermediate between the two forms"; those from Minneapolis (dark), he said, were nearest the former, while some from the southern part of the state (light) were decidedly nearer the latter. Therefore I consider it safe to list both forms.

236. *Vireo olivaceus*. Red-eyed Vireo. Common summer resident.

237. *Vireo philadelphicus*. Philadelphia Vireo. Not common. Migrant.

238. *Vireo gilvus*. Warbling Vireo. Common summer resident.

239. *Vireo flavifrons*. Yellow-throated Vireo. Summer resident. Not very common.

240. *Vireo solitarius*. Solitary Vireo. Migrant. Common.

241. *Vireo belli*. Bell's Vireo. Entered on the authority of Thos. Miller, who has observed it at Heron Lake. With more observers in the south it would be doubtless found well represented.

242. *Mniotilta varia*. Black and White Warbler. Common migrant.

243. *Prothonotaria citrea*. Prothonotary Warbler. Common along the Mississippi in the south, as at Redwing and La Crescent, breeding at both places.

244. *Helminthus vermivorus*. Worm-eating Warbler. The only person who seems to have observed this warbler is Mr. C. B. Johnson, who saw a pair at Redwing first week of June, 1889. Although he did not shoot the birds he watched them some time and is sure of the identity, noticing the characteristic markings on the head.

245. *Helminthophila pinus*. Blue-winged Yellow Warbler. Rare. Has been taken by Mr. Roberts on May 17, 1880, near Minnehaha Falls. Mr. J. C. Hvoslef took two at Lanesboro on August 28, 1887.*

246. *Helminthophila chrysoptera*. Golden-winged Warbler. Migrant. Not common. Breeds in the northern part of the state.

247. *Helminthophila ruficapilla*. Nashville Warbler. Common migrant.

248. *Helminthophila celata*. Orange-crowned Warbler. Migrant. Not common.

249. *Helminthophila peregrina*. Tennessee

Warbler. Migrant. Common. Some years abundant.

250. *Compsothlypis americana*. Parula Warbler. Migrant. Not common.

251. *Dendroica tigrina*. Cape May Warbler. Migrant. Fairly common.

252. *Dendroica aestiva*. Yellow Warbler. Abundant summer resident.

253. *Dendroica caerulescens*. Black-throated Blue Warbler. Migrant. Rare.

254. *Dendroica coronata*. Myrtle Warbler. Abundant migrant.

255. *Dendroica maculosa*. Magnolia Warbler. Common migrant.

256. *Dendroica cerulea*. Cerulean Warbler. Rare. Has been taken by Mr. Hvoslef once at Lanesboro, on May 5, 1887.

257. *Dendroica pennsylvanica*. Chestnut-sided Warbler. Common migrant. A few remain to breed.

258. *Dendroica castanea*. Bay-breasted Warbler. Not common. Observed in migrations.

259. *Dendroica striata*. Black-poll Warbler. Common migrant.

260. *Dendroica blackburniae*. Blackburnian Warbler. Migrant. Not very common.

261. *Dendroica virens*. Black-throated Green Warbler. Common migrant. A few breed.

262. *Dendroica vigorsii*. Pine Warbler. Migrant. Not very common.

263. *Dendroica palmarum*. Palm Warbler. Abundant migrant.

264. *Seiurus aurocapillus*. Golden-crowned Thrush. Common summer resident.

265. *Seiurus noveboracensis notabilis*. Grinnell's Water Thrush. This form of the Water Thrush is a common migrant and breeds in the northern part of the state.

266. *Seiurus motacilla*. Large-billed Water Thrush found in the southern part. It is common at Lanesboro and Heron Lake, but not found at Minneapolis.

267. *Geothlypis philadelphia*. Mourning Warbler. Rare, but has been taken near Minneapolis, and breeds in the vicinity of Duluth.

268. *Geothlypis trichas occidentalis*. Western Yellow-throat. According to Mr. Ridgway our Yellow-throats are referable to this variety. It is a common summer resident.

269. *Icteria virens*. Yellow-breasted Chat. Found principally in the southern part, but has been known to nest near Minneapolis in the summer of 1885, but I was never able to discover any birds during six years' collecting there.

* Auk, April, 1890, page 213.

270. *Sylvania mitrata*. Hooded Warbler. Rare. Entered on the authority of Mr. Thos. Miller, who has observed it at Heron lake. He says regarding it, "I observed it one Sunday afternoon at a distance of fifteen feet for nearly an hour. Of its identity I am positive."

271. *Sylvania pusilla*. Wilson's Warbler. Migrant. Common.

272. *Sylvania canadensis*. Canadian Warbler. Migrant. Not common.

273. *Setophaga ruticilla*. Redstart. Abundant migrant. Breeds.

274. *Anthus pennsylvanicus*. American Titlark. Migrant. Not common, at least near Minneapolis, where I have seen it but a few times.

275. *Anthus spragueii*. Sprague's Titlark. Rare, and confined to the prairies of the western part, where they are said to breed. I am quite sure I observed this species in Lac-quipaile County, but could not get the bird in question, and decide positively. It was high in the air and singing loudly a song I had never heard before. I am positive it was neither a Shore Lark nor a Longspur, but think it must have been *spragueii*.

276. *Galeoscoptes carolinensis*. Catbird. Abundant summer resident.

277. *Harporhynchus rufus*. Brown Thrasher. Abundant summer resident.

278. *Troglodytes aëdon parkmanni*. Parkman's Wren. In Mr. Hatch's list both *aëdon* and *parkmanni* are listed as "common," but Mr. Roberts once took the trouble to collect a series of House Wrens from different parts of the state and sent them to Mr. Ridgway for identification, who pronounced them all *parkmanni*, and the most typical specimens he had ever seen.

279. *Troglodytes hiemalis*. Winter Wren. Not common. A few stay all winter.

280. *Cistothorus stellaris*. Short-billed Marsh Wren. Not common, and little observed, but breeds.

281. *Cistothorus palustris*. Long-billed Marsh Wren. Abundant in marshes.

282. *Certhia familiaris americanus*. Brown Creeper. Resident. Common. Breeds to the north.

283. *Sitta carolinensis*. White-breasted Nuthatch. A constant resident. Breeds.

284. *Sitta canadensis*. Red-breasted Nuthatch. Not common. Breeds to the north.

285. *Parus atricapillus*. Black-capped Chickadee. Abundant. Constant resident.

286. *Regulus satrapa*. Golden-crowned Kinglet. Common migrant.

287. *Regulus calendula*. Ruby-crowned Kinglet. Also a common migrant.

288. *Turdus mustelinus*. Wood Thrush. Common summer resident.

289. *Turdus fuscescens*. Wilson's Thrush. Common summer resident.

290. *Turdus aliciae*. Gray-checked Thrush. Common migrant. Found in company with the next and more common. A few remain during the summer to breed. Know of two nests being found near Minneapolis in 1886. Nested near the ground like a Wilson's Thrush, but the eggs were finely sprinkled with black or very dark brown.

291. *Turdus swainsonii*. Olive-backed Thrush. Migrant. Not common.

292. *Turdus aonalaschke pallasii*. Hermit Thrush. Common. A few breed at Lake Minnetonka every year.

293. *Merula migratoria*. American Robin. Abundant summer resident.

294. *Sialia sialis*. Bluebird. Common summer resident.

295. *Sialia mexicana*. Western Bluebird. "Only one seen. Red River." Hatch.

Favors—What are to Him Old Names.

Several times lately I have seen anxious inquiries for a portrait of the author of "Dickcissel" for *Spiza Americana*. I am happy to say that I can oblige their curiosity. In the July number of the O. & O. appears a portrait of the bird in question, let them look at this. Surely no one who has ever heard the song of the Dickcissel can question the origin of his name. Take a trip to the nearest clover fields and hear him say "dick, dick, cissel, cissel." Vesper Sparrow has always borne that cognomen in this vicinity so that the change seems appropriate.

Although I have many times noticed the similarity of a wheeling, scurrying flock of *P. nivalis* to flakes of snow whirled and tossed by the wind, still I prefer Snow Bunting. I have no arguments to offer in defense of that statement other than that I like it better.

As *Spinus pinus* is of the same genus as the Goldfinch I see no reasons (there are some doubtless) why he should be Pine Siskin any more than the other should be Gold Siskin.

Blue Yellow-backed Warbler is better than Parula inasmuch as it describes some peculiarity of the bird which Parula does not.

S. E. W.

Kent County, Mich.

Nesting of the Arizona Jay.

Aphelocoma sieberii arizonæ, the Arizona Jay, is one of the most characteristic birds of southern Arizona. In the Huachuca mountains it is a common resident, frequenting the live oak groves of the cañons and foothills at from 4,000 to 7,000 feet elevation, where they remain in flocks or bands of half a dozen or more during the entire year.

They are very noisy birds, often making themselves unwelcome visitors by surrounding any traveller and screaming angrily about him, and following along for half a mile.

To any one hunting deer or such game they are a great disadvantage, often warning off the game before it can be seen.

The nesting season commences by the middle of March and continues until the end of May. I have found fresh eggs during the entire period, although most of the eggs are laid by the last of April. In the cool cañons the nesting takes place later than in the foothills.

I have found the nests of this species almost invariably placed in oaks, either the largest rugged trees, or the saplings of a second growth. They vary in height from six to thirty feet, and are placed either on horizontal limbs or in the upright crotches, in the tops of the trees, and I have found them rarely in the small twigs at the extreme end of a branch.

The nests are all very much alike and can be told at a glance from the nest of any other bird I have ever examined. The platform is invariably a large mass of sticks and oak twigs piled up loosely, and held together only by their crooked shape. Upon this is built the nest proper, which is a somewhat flat structure of fine brown or yellow roots and a lining of hair from the mane or tail of a horse. Some of these nests are very thin, and when removed they can be seen through; others are nearly an inch thick and very compactly built. Occasionally a nest is made of a peculiar black root, and when also lined with black hair it looks peculiar.

During the season of 1890, I collected several dozen of these nests and over a hundred eggs. The variation which these show is remarkable for a plain egg. I have found from two to six eggs as a full set, the usual number being three, four, or five in about equal numbers. Their color is deep greenish-blue, from the shade of a Robin's egg to nearly the color of a Catbird's, although not so glossy as the latter. In most of these eggs there are faint

bluish spots apparently but a few shades lighter than the ground color. These spots are constant in a large series, although sometimes very faint and sparse, and almost invisible. They appear to be scattered uniformly over the eggs with perhaps a trifle more at the larger end. Of the large series of specimens before me the average measurements are 1.21 x .89. The largest egg measures 1.27 x .95. The smallest specimen 1.08 x .83. Two extreme in shape measure 1.21 x .80 and 1.06 x .90. The shape varies from oval to pear shape and sometimes almost spherical. The typical shape will about correspond with that of our eastern Jay's eggs.

O. C. Poling.

Fort Huachuca, Arizona.

Horned Lark or Prairie Horned Lark, Which is It?

There seems to be a wide difference of opinion in regard to the birds with the above heading. Most of our eminent writers on the subject claim that the bird found in this part of Michigan is the Prairie Horned Lark, while the majority of our local ornithologists, who have made the bird found here a careful study, claim it to be the true Horned Lark (*Otocoris alpestris*) and have marked their specimens of birds and eggs in their cabinets as such. Mr. Davie in his valuable work (*Nests and Eggs of North American Birds—Third Edition*) in speaking of the Horned Lark (*Otocoris alpestris*) says that, as there are a number of geographical varieties of the Horned Lark, the greatest uncertainty has always attended their identification even by experts, and the breeding and winter ranges of the various subspecies do not yet seem to be clearly defined, in which he seems to be right. It is my opinion that the variety found here, for we have but one, is the true Horned Lark, for one thing is certain, that the variety that winters with us is the one found breeding here early in March, and if it is not the Horned Lark then that variety never visits this part of Michigan. I hope that my ornithological friends will pardon me for being so positive, but as I have made this bird a careful study for a number of years, and as I have watched it daily through the winter months and through its early mating and nesting season I could not help but be convinced that it is the Horned Lark. Some of these birds must nest very early for on March 27, 1890, I found a young

bird that had left the nest and was all feathered out and able to fly three or four rods at a time. Judging from the time that it took for the bird to mature, I think that the egg that it hatched from must have been laid the last of February or the first of March. I have often seen their nests, after the eggs had been deposited, covered with snow to quite a depth, which generally causes them to forsake their nest. But I have often found the bird clinging to her treasures under quite a depth of snow. I found three nests last spring, the first one March 25, 1890. It contained two fresh eggs, but a Hawk killed the bird on the nest and devoured her on the spot before she had laid her full set. The second nest was found March 27, 1890. It contained three eggs slightly incubated; and the third nest was found March 30, 1890. It contained three fresh eggs. All of the nests were built in a depression in the ground just deep enough so that the top edge of the nest was just even with the surface, and were all composed of fine grass and lined with a few feathers and down from the bull-thistle. I hope that the identification of these birds may soon be settled beyond a doubt, for I know there are many cabinets throughout the land that contain these birds and their eggs, and some are labeled "Horned Lark" while others are marked "Prairie Horned Lark," and one or the other of them is surely marked wrong.

James B. Purdy.

Plymouth, Wayne Co., Mich., Aug 4, 1890.

Foot-rule and Scales.

There is nothing better calculated to knock the romance out of the enormous specimens of fish, flesh and fowl that become the prey of the hunter and fisherman than these two small instruments—foot-rule and scales.

Several "large" eagles have been mentioned in the O. & O. at different times and quite a little discussion arose on the question of size. I well remember the first eagle I ever handled. He was alive, one wing being broken, and by the time I had got him safely laid out I began to speculate on his spread of wing. The specimen was an adult "bald" and I could not feel satisfied under seven and a half or eight feet across the wings—something to talk about. The foot-rule was introduced and gave the returns as six feet six inches.

A much larger adult specimen of the same species was handled shortly after but circum-

stances were such that I had no opportunity of measuring. A conservative estimate would have given this one some eight or eight and a half feet spread. It was probably not over seven. I got hold of another one that seemed very large, this time an immature "bald," second year I think. I fully expected seven and a half feet this time; foot rule said six feet nine inches.

I was down the creek after Louisiana Water Thrush nests last spring and came on a chicken snake laying stretched out on the bare ground. "Seven feet, or I'm a liar," I remarked to myself confidentially as my eye measured every inch of his length. I fully believe that anyone used to measuring snakes only by eye would have estimated that one at seven and a half or eight feet. It was an enormous specimen for this region. Its correct length by the foot-rule was five feet nine inches.

I remember being told some years ago by a man who had twice doubled Cape Horn in a sailing ship, that the Albatrosses killed in the Pacific and brought aboard ship measured twenty-eight or thirty feet from tip to tip. Science comes along with a foot-rule and says they don't grow that large now-a-days. Condors are or were popularly supposed to measure twelve or fifteen feet across the wings, but collectors of these large specimens usually left their foot-rule at home.

I had a mean trick played on me the other day. I was one of a small fishing party, and on reaching the river and commencing operations one of the crowd produced a carpenter's rule, and remarked that he was now ready to record the size of all large fish caught, having brought his instrument along in the interests of truth. Among other things we caught a gar that was at least three feet long and would have been recorded as such had not that miserable carpenter's rule said it was twenty-four inches only.

Winter before last I caught my first otter. I was as proud as a dog with two tails, and sat on a log and admired my game, good fashion, before making any estimates. I knew very well that the book size of an otter was four feet and a half long, weight, twenty-five pounds. Mine I estimated at four feet by twenty pounds, but before I got home I thought he weighed forty. Foot-rule said three feet six inches, and scales said fifteen pounds. I have trapped a number of others since then and can now estimate the size of an otter pretty well.

Early last spring I was crossing a ridge of

woods and came on a possum sitting in the fork of a black jack some twenty-five feet up. Needing his skin and not wishing to make a sieve of it I manœuvred around until his body was protected by the fork, leaving only his head visible. After shooting at him four times with tens, sixes and B. B.'s, climbing for him, knocking him out, catching him on the ground and killing him, I discovered what I thought before, that I had secured a large possum, though poor. On my way home I met two men going fishing who exclaimed at the large size of my game. I handed it to one of them asking what he thought it weighed. He "hefted" it and remarked that "that possum 'll dress eight pounds." I expressed surprise as my estimate of its weight was about seven pounds, gross. He handed it to the other man who likewise gave its weight at eight pounds when dressed. I met another old fellow a little further on, a man who knows what's what in possum lore. He also considered it a big one but gave no specified weight. People here who don't use scales consider a possum should weigh six or eight or more pounds when dressed to be a large one, and you can *hear* of them up to ten or twelve pounds. On putting mine on the scales he weighed exactly five and a half pounds, gross, equivalent I suppose to three and a half or four pounds, net. My faith in ten pounders is small since then.

With regard to the use of foot-rule and scales by fishermen I can only say "don't." Give us liberty (to estimate the size of our fish) or give us death.

H. H. Brimley.

Raleigh, N. C.

On the Nesting Habits and Eggs of the Vermillion Flycatcher.

This interesting Flycatcher (*Pyrocephalus rubinus mexicanus*) is of quite common occurrence throughout the most of Arizona. It is not a bird of the mountains, but its favorite resort is along the streams and washouts from the mountains or in the valleys between the different ranges. They sometimes enter the wide cañons and nest in the scrub oaks of the foothills, but seem more at home among the sycamores or willows of the water courses.

They are met with in considerable numbers in the vicinity of Fort Huachuca, Arizona, and during the spring of 1890 several dozen pairs bred close to or within the post. - A dry creek

bed lined with sycamores and walnuts, and extending out from the mountains several miles, was their principal nesting grounds. In the month of April most of these birds come up from the south, the males in advance of the females. As soon as the females arrive nesting is begun, and by the middle of May most of the nests are completed and eggs laid.

I found my first nest of the season on May 9th. It contained four *young birds* a day or two old which was an unusually early record for this species. During the month of May about a dozen nests were found containing eggs or young. These were usually placed in oaks, sycamores, willows, or walnuts at from eight to twenty feet from the ground. They are generally at the end of a horizontal limb either on a fork of the limb or on the main limb, and generally but a small part of it is visible from beneath. The male is usually close about the nest, and its bright plumage, together with its habit of poising and fluttering in the air like a butterfly makes it very conspicuous.

The nests and eggs of this bird are different from those of any other species I am familiar with. Though about the same color as a Wood Pewee's nest they are more shallow, not so large, and composed partly of short twigs woven together with cobwebs. Often bits of twigs are seen all over the inside of the nest where eggs are lying. I have never seen any lichens used in the construction of these nests, although plenty of it is to be found on the trees about them. The eggs are of a deep cream or buff color, sometimes as deep as in the eggs of Traill's Flycatcher, and are heavily marked with different shades of brown, gray, and lilac; with usually a distinct and broad ring of blotches around the larger end, although sometimes the smaller end or the middle of the egg is most heavily marked. Of a dozen selected eggs the measurements are as follows: .74 x .56, .73 x .56, .73 x .55, .72 x .56, .72 x .55, .71 x .56, .69 x .55, .68 x .55, .68 x .53, .67 x .56, .67 x .53 and .63 x .52.

The largest egg in the series collected by myself is .77 x .66 and the smallest .63 x .52.

Otho C. Poling.

Fort Huachuca, Arizona.

Late Breeding of the Goldfinch.

The well-known fact of an American Goldfinch breeding later than other birds has been a puzzle to ornithologists, especially as it stays

with us all winter and doffs his summer suit as soon as apple blossoms unfold; few build in northern New Jersey before the beginning of July and later. The latter part of August and September is the time I hear most young ones squeaking after the old birds to be fed. On one occasion I watched a nest of young near my house that left the nest on the last of September which was probably a second nest.

I need not go through the quotations from various ornithologists as to the probable reasons of this late breeding, such as proper food for their young, or materials for building their nests, etc. One thing is certain, they are as joyful as any of the amorous birds in spring that commence housekeeping promptly as soon as the weather permits them. Who has not heard the Goldfinch's sweet notes among the fruit tree blossoms? Often a flock on one tree all sing together as if trying to outsing each other. I have noticed for a number of years that after the flood of dandelion seed was over the Goldfinches became scarce, too, and I began to suspect that the birds left to follow up the flowers as the harvest approached further north, following up the ripening seed of which they are intensely fond. They will so eagerly alight on the roadside or any sheltered corner where the first ripe seed appears that they may be very closely approached, and as the seed gets plentiful many more birds arrive, to disappear when the seed becomes scanty. This season I made test observations and found that on the beginning of June few Goldfinches were left; after I saw none for two weeks; on the 20th of June I saw two male birds, next week one or two more; but not till July did I see little parties of two or three males in company. It was the middle of July before I saw any females. In this part there are very few thistles, so I do not think they stop for that, as some suppose. The birds are quite common from July. If some ornithologists will take observations farther north to track the birds it could soon be found whether my theory is correct.

Ridgewood, N.J.

Henry Hales.

Nesting of the Eared Grebe.

On June 20th, in company with Mr. Dennis Gale, I visited a colony of Eared Grebes (*Colymbus nigricollis californianus*) that had commenced nesting in an alkali swamp in this locality. Their nests were composed of water

moss, drawn together in heaps and anchored in a bed of rushes. There were then about fifty nests, and a few contained the full complement of eggs, which is rarely over four. The nests were all placed where the water was about eighteen inches deep and fifty feet from the shore. I visited them again on the 10th of July and found their numbers had augmented considerably. Now there were hundreds breeding there, and at a distance they looked like a heavy black line as they sat on their eggs. On my first visit I marked some of the unfinished sets as I was anxious to know the period of incubation. Not seeing any hatched I broke one, to test them, which was about two thirds incubated, but the chick was dead. I selected an egg from each nest of those near me and found them all the same. I passed through the whole colony occasionally testing them until I reached those that were more recently laid, but although here incubation had not so far advanced they were all destroyed. Until then we had had no bad thunder storms. In these high altitudes lightning will sometimes strike a lake and kill most of the fish, but I certainly cannot attribute this catastrophe to that, but it is my firm belief the sun was the only destroying element. Being fully exposed, the old birds found their task unbearable, left their nests, and there is not a doubt in my mind but that they were all literally cooked.

Wm. G. Smith.

Loveland, Col.

Nesting of Olive-sided Flycatcher.

The above named, though not common, are yet regular visitors during the summer months, and are found frequenting the old clearings and open places in the country. They may be seen perched on the tiptop of some old rampike, tall spruces, or out on the end of a dead limb of some hardwood tree, and are easily distinguished from other birds by their upright position on the branches, and their peculiar cry of two, two, two, two, two, two, the last sound being sharper and longer drawn out than the first. When on the wing and darting after insects, from the top of one tree to the other, their flight is almost identical with that of the cedar bird, and at a distance, one very apt to be confounded with this latter species.

Three different pairs of these Flycatchers came under my observation during the months of June and July last, hence following remarks•

The first nest I found was on 21st of June. I had watched the old birds prior to this for three different days, but failed to discover the nest. I had a pretty good idea about where it was situated, and this time getting under cover I kept my eyes on the birds. Pretty soon the ♀ darted off towards some tall black spruces, and failing to reappear I walked up, and taking a position where I could command the different trees I discharged one barrel of my gun, when out she darted from near the top of a tall black spruce over to my right. Going over I walked round and round the tree, searching closely the branches overhead, and shortly spotted what I took to be the nest placed way out on one of the limbs and about fifty feet up from where I stood. I started up the tree, and after getting up about half way took another look at what I supposed to be the nest, and examining it carefully came to the conclusion that it was an old last year's, so slid down the tree, got under cover again and waited for the ♀ to show up, ruminating meanwhile on the uncertainties of this life and the finding of Olive-sided Flycatchers' nests in particular. In a little while the ♀ showed up, and shortly, much to my surprise, she lit on the limb close to my "last year's nest," and with a hop and a skip disappeared within. I dropped a few remarks, and straightway began to reascend the tree. Arriving on a level with the nest I found it was too far out on the branch to get at, and the limb not strong enough to carry me, so going above it I looked down and there I saw three beautiful white eggs, marked with red and brown spots laying in a very rough, flat kind of a nest. I then got down to the limb and, thinking things over, a grand idea for the rescue of the nest came with such a rush upon me that if I had not a firm grip upon the limb I verily believe that I should have been tumbled to the earth below. The "idea" that came so near terminating my brief existence upon this terrestrial globe was very simple. I should cut off the limb and lift it with the nest, in towards me. So at it I went, and just as I got the blessed limb about cut through it suddenly bent down and away went the three eggs out of the nest and scattered to the four winds (like the flour in the story of "Hard Times"). Gasping for air, and allowing the tears to fall unchecked, I caught myself by the back of the neck with one hand and with the other lowered myself from limb to limb to the earth below, kicking myself as I went and praying at the same time. Arriving on the ground, I

gathered up my traps, and, walking over the dog, left for home, a sadder and a wiser man.

Next day, the 22d, on thinking the matter over I came to the conclusion that I had acted rather hastily, and determining to secure another nest I started out. After knocking about for some little time I spotted a bird perched up on top of an old dead tree, sitting up straight as an arrow, and every now and again getting off in good form his hearty cry of two, two, etc. Getting up closer I watched that bird from 3 o'clock in the afternoon until 6.30, and examined carefully every tall tree (spruce) in the vicinity, discharging at intervals my gun, but failed to make the ♀ show up. On the 23d I spent the day watching this particular bird, and this time the ♀ was on hand, but in spite of all my efforts and knowing the nest must be close by I failed entirely to locate it, and wishing the birds a fond adieu, retired.

July 2d I started out again, and after walking for quite a while came across another "Olive-sided" occupying a dignified position on the top of a tall spruce tree. After watching for some time and he confining his flight to three trees in close proximity I concluded the abiding place of his better half was close by. Getting close to the trees I discharged my gun, and was promptly rewarded by seeing the ♀ come out from one of the trees to my left. Going close to the tree and getting under cover I waited for the ♀ to return, and point out the way to her nest. In a short time she came back, and flying into the tree that I was watching disappeared in one of its branches. I then walked underneath the tree and gazing up began to scan the branches, but not being able to see the nest I stood out from the tree and discharged my gun again when away darted the ♀, and this time showing the limb, and way out on the end of it the nest. Going up the tree I found on reaching the nest that it was placed on the end of a smaller branch that shot out from the main limb, and was even harder to get at than the one found June 21st, so going above the nest and looking down I saw that it held three eggs, but having no means of securing them, got down the tree and left, intending to return.

July 3d found me once more underneath the tree with a tiny flannel dip net rigged on a good, long, light pole (a la Bishop style, Kentville), when, slinging my collecting box, full of cotton wool, over my shoulders and taking dip net in one hand, I proceeded carefully to mount the tree, and going above the nest and

working out on limbs, as far as I dared, I was just able to reach the nest with the net, and carefully pushing it in the nest and underneath the eggs I had the satisfaction of seeing them disappear within, and in a few seconds they were in my possession and wrapped in the wool, and packed away in the collecting box. Then knocking the nest off with the net and dropping both to the ground, I was soon with them, right side up, and this time with my eggs and nest safe and sound. Then shooting the ♀, I left for home.

The nest is a very crude and shallow affair made of rootlets and twigs and lined very slightly with a little long, gray moss. The nest measures 2½ inches on the inside, 3½ inches outside, and 1½ inches deep. The eggs are very pretty, having a yellowish-white ground with pale and dark reddish-brown spots. Both nests were built on black spruce trees.

Harry Austen.

Halifax, N. S.

Woodchucks Climb Trees When Egg Collecting.

I notice in your last issue you speak of a Woodchuck climbing a tree, and say you think that is very unusual. While this is not exactly within the province of either the ornithologist or oölogist, perhaps it would not be out of place to state that here in southern Wisconsin it is by no means unusual to find woodchucks in trees. When out looking after eggs I very often see one laying along the horizontal limb of a black oak or burr oak, and on several occasions have thrown clubs at them and knocked them down.

You may put me down as in favor of the old names in preference to the A. O. U. While "a rose" would smell as sweet if called by any other name, it would be a great deal harder to convey to other people the idea of what flower you were talking of. The common names belong to the people, and to try to change them only adds chaos to confusion.

Stoughton, Wis.

W. W. G.

Correspondence.

Editor of O. & O.:

We would not object so seriously to the adoption of the new names of some of our birds as coined by the A. O. U. if that would settle it, but it will not. In a few years these new names will become old and must be changed again, and so on from time to time. Considering some of the ridiculous

names they have started out with, what will they be at the third or fourth change? The following is as likely to appear as anything else:

OLD NAMES.	NEW NAMES.
Bay-winged Bunting,	Snake in the Grass.
Snow Bunting,	Whirlygig.
Sparrow Hawk,	Mouse Trap.
Night Hawk,	Insect Net.
Bobolink,	Grinde Organ.
Road Runner,	J I C. [washee.
Spotted Sandpiper,	John Chinaman washee
Pied-billed Grebe,	Sea Cow.
Fish Hawk,	Hell Diver.
American Bittern,	Marsh Bull.
Ruffed Grouse,	Thunder Pumper.
American Crossbill,	Ice Tongs.
American Flamingo,	Oyster Tongs.
Great Blue Heron,	Straddle Bug.
Bald Eagle,	Jesse James.
Turkey Buzzard,	Old Fragrant.
White or Whooping Crane,	Johnny Jump-up.

These names will all be new when brought out by the A. O. U. Who is running this world, the Ruler and Preserver of all things or the A. O. U.? If the latter, why kick or vote, if they are not, why all this hubbub?

Mossback.

New Publications.

There has just come to hand a little book on sanitary and economic cooking which is intended to teach people of moderate means how to live cheaply and healthfully. This class surely includes the average naturalist and collector beyond a doubt, and our hearts bounded with delight at the thought of being able to economize sufficiently to live within our income; but to our great disappointment we could find no instructions how to advantageously cook a Warbler after his skin had been duly taken care of, nor how to make an English Sparrow stew, especially available since the late action of our legislative Solons, in putting this bird among the rapacious birds of prey, so injurious to the welfare of the agriculturist; nor yet how to make the flesh of a Crow or Hawk palatable and savory. But after a perusal of its pages we think that with our limited knowledge of the culinary department and the aid of the necessary scientific apparatus of thermometer and stew kettle, we might be able, with the assistance of an editress, to concoct an appetizing repast out of a very limited amount of raw material.

"Practical Sanitary and Economic Cooking," a prize essay by Mrs. Mary Hinman Abel. 12mo. 190 pp. Published by the American Public Health Association.

THE
ORNITHOLOGIST^{AND} OÖLOGIST

A Monthly Magazine of
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS,
THEIR NESTS AND EGGS,
and to the
INTERESTS OF NATURALISTS.

Under the Editorial Management of

FRANK B. WEBSTER,	Boston, Mass.
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FRANK A. BATES,	Boston, Mass.

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Brief Notes.

Otto Grundmann, a native of Meissen, Saxony, for a number of years connected with the Art Museum, Boston, as a director and instructor, died early in September while on a visit to his native city. Mr. Grundmann was a true lover of nature, seeing beauty in all its branches. During the past five years he has been a constant caller at our office. The finest specimens of mounted birds that we could obtain were always put aside for his inspection. It was his intention to present to the High School of Meissen a complete collection of birds of North America, and many a fine lot has been sent. His untimely death will be a great loss to those whom he intended to benefit.

Several sets of eggs of the Florida Burrowing Owl have found their way into the market. It looks as if some one had struck a colony. They are rare just the same.

Those of our readers who have stuffed heads in their collections should look to them at this season. No matter how well they may be cured or poisoned. If there is any appearance of insect pest, lose no time in applying a bath of naphtha over the surface with a cloth or sponge. It will arrest their depredations. Care must be taken to have no light or fire near as naphtha is highly inflammable.

One of our correspondents asks "What are considered the rules of exchange?"

Dealers, we think, uniformly allow one half rates on eggs and skins, requiring them to be sent subject to approval. That is, for every ten dollars' worth sent, if found to be as represented five dollars' worth will be sent in

return. Those who are not dealers exchange at even rates. In making exchanges it is well to be sure that you are trading with responsible parties. There are two reasons why in trading a favor is made to a dealer. First, a dealer will make a larger exchange, taking with rare eggs many of the common ones that could not otherwise be disposed of, and will offer a better assortment in return. Second, a dealer must live by the exchange, while other parties indulge in it as pastime. There should be no friction in the matter. The dealer and the collector are mutually dependent upon each other.

Some of those little artificial birds that just now crowd the millinery stores are not all as innocent as they appear. Some that we examined a few days since had the entire wings and tail of European Skylark wired out the body, others had feathers from songsters that we did not recognize.

A flock of Passenger Pigeons that lately arrived at our place are quite wild. The males indulge in a peculiar noise, an inexpressible squawk with a broken back. We hope to be successful in keeping them.

A change in the law in this state no longer donates one half of the fines imposed to the lean purses of the "efficient?" game warden, and now these poor fellows have reduced their energy to meet the emergency.

One of the best jokes of this permit business was a case last year where a holder of a permit got fined. He was arrested for shooting and did not happen to have his permit with him. He was squeezed just enough to draw blood. It would have been a case that the Massachusetts League of Ornithologists would have had fun with if they had been inclined to pick it up.

It is just a trifle ludicrous the value some of our exchanges place upon their publications. It looks in some cases as if they had hard work to give them away.

We surmise that Walter E. Bryant is the advertising manager of *Zoe*. The August number announces that he started south and, as all the advertisements dropped out, he must have taken them with them.

Publishers will take notice that, as a rule, we do not intend to review works not having a direct bearing on Natural History.

The *Naturalist* will hereafter be published by the Kansas City Academy of Science, which will have a large exhibit at the Interstate fair, Sept. 22d, when some 10,000 copies of this paper will be distributed gratis. A Mr. Scarlett will donate (papers to be drawn soon) a large lot in the picturesque neighborhood of Twenty-six and McGee streets, for the use of the Academy, and they are now making diligent efforts to secure a sufficient sum to erect a suitable building to cover their collections and growing library. The outlook in this respect is very bright.

OCTOBER, 1890.

VOL. XV.

NO. 10.

Ornithologist



AND

Ornithologist

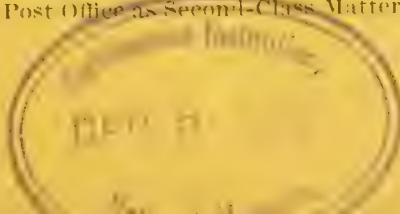
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BOSTON, MASS., OCTOBER, 1890.

No. 10.

Nesting of the Kentucky Warbler in Chester and Delaware Counties, Penn.

Having been quite fortunate in finding nests of this Warbler (*Geothlypis formosa*) during the past season I thought that my experiences might be of interest to the readers of the O. & O.

Another year's collecting leads me to think that my assertion, that the Kentucky Warbler probably bred more commonly in these two counties than anywhere else, was correct.

To a practised person the nest of this bird is not very difficult to find, unless it should be placed on a hillside.

They begin to breed often about the 18th of May. Some nests found by me this year must have had their full complement of eggs by the 20th of May. Then on the other hand my last set was taken on the 18th of June, and my brother took a set of four fresh eggs on the 25th of June, and a nest was found on the 15th of July with young birds, so there is often a difference of a month between the incubation of different pairs.

On the 21st of May I found my first nest this year. It was just finished, and I secured a fine set of five eggs exactly one week later (the 28th) from it.

It was placed at the bottom and between the forks of a spicewood bush and was a very bulky nest. The ♀ was not on the nest, and I presume had just laid one of the eggs that morning. It was not more than ten yards from the edge of the woods. When I was packing up the eggs and nest there was no sign of the birds around, but when I again passed the spot about fifteen minutes later both birds were making a great noise.

The second nest was found on the 25th of May, and contained two eggs of the warbler and one of that pest, the Cowbird. I had been

looking for this nest for about two or three hours before I succeeded in finding it. The birds had been making a great deal of noise, and had been jumping up every few minutes from a clump of swamp cabbage. As there was a great deal of this plant in the woods and the wood was a large one, it can easily be seen that it was no easy matter to find that nest. At last I happened to glance down at a certain clump which contained the nest, but was somewhat disgusted to find it only had two eggs and one Cowbird. However, I secured four eggs of the warbler and the Cowbird's egg from it on the 28th. The ♀ flushed very close and did not go more than ten feet from the nest while I was packing it up.

The third nest was also found on the 28th of May and contained four fresh eggs. This was also near the edge of a wood, not being more than six feet from the fence. This one, like nearly all the others, was at the foot and between the forks of a spicewood bush. A peculiarity about this nest was that it was lined with white horse-hair, instead of the black rootlets and horse-hair one almost invariably finds in nests of this species. This last nest was the third I had found that day and in a joking sort of way I said to my brother, "I am going out now to make it four."

I walked to the nearest woods and had hardly gotten inside of it when I found another nest, this time with five eggs, which were incubated a few days. This one was situated in about the last place I ever expected to find a Kentucky Warbler's nest. It was not more than twenty-five yards from a public road where there is a great deal of travel, and it was not nearly as well hidden as usual, as you could almost see the nest from the road.

On the 30th of May my father, my brother and myself started out for a day's trip. My brother found a fine set of five, but unfortunately they were nearly hatched and it was

impossible to prepare them. This nest was situated right on the edge of a road with woods on each side of it, and my brother flushed the female.

My fifth set was taken on the first of June and consisted of four eggs. It was situated like all the others, and I flushed the ♀.

The sixth set was taken on the 3d of June, and contained four eggs of the warbler and one of the Cowbird. This nest was not more than fifteen feet from a large field on the edge of a wood. Bird flushed.

I did not take any more sets until the 18th of June when I took my seventh and last set of four eggs, although I found three more nests containing young birds and two which apparently the birds had deserted.

My brother, Henry Norris, took a set of four eggs on the 25th of June. The nest was not more than six feet from a public road where at least a hundred wagons go past every day, and the wood was very small.

Result of season's collecting: Myself, five sets of four, two sets of five, five nests not yielding any sets, three with young birds and two deserted. My brother found one set of four, one of five (too much incubated to prepare), and four nests with young birds. Total, eight sets, seven nests with young birds and two deserted. Not a bad season's work, and I hope to do better next year.

J. P. Norris, Jr.

Philadelphia, Pa.

The Number of Eggs in a Set.

This is one point oölogical about which much has been written, and about which there seems to be a great deal of difference of opinion, many ornithologists and collectors apparently deeming themselves able to decide what number of eggs any particular bird ought to lay, without asking the opinion of said bird first.

Now I don't like to hear the poor birds treated so, and I unhesitatingly affirm the right of any bird to lay a big set or a small set like some of my poor Chickadees and Prairie Warblers down here, and not to be strictly limited to laying only what some folks call a *true* set, as if sets of any other size were untruthful or at any rate came from a big liar (I refer to the bird, not the collector).

Now I have studied the matter somewhat with regard to the birds down here, and below I give the result of my observations, though

of course so far they must be considered as only approximating the actual facts.

In looking up the matter I endeavored to locate three points, viz.: What was the standard set, what was the variation in number of the set, and thirdly, what was the percentage of sets varying from the standard. And now I will take the species I have studied in due order.

Mourning Dove, Turkey Vulture, Whippoorwill and Ruby-throated Hummer. Standard set of each, two, variation none.

Crested Flycatcher. Standard set, five; variation, four to six. Four is second or third laying and six is rare.

Wood Pewee. Variation, two to three. Standard set not determined, but two seems as common as three.

Acadian Flycatcher. Standard set, three. Variation, none.

Red-winged Blackbird. Standard set, three or four. Variation, three to five; three seems as common if not commoner than four, and I have only seen one set of five.

Orchard Oriole. Standard set, five. Variation, four to five.

Field Sparrow. Standard set, four. Variation, three to four; per cent of variation, 33 1-3.

Cardinal. Standard set, three. Variation, apparently none, as my sets of two have always been open to the doubt that some boy took No. 3 before I got there.

Indigo. Set, three to four, apparently about equal numbers of each.

Blue Grosbeak. I used to think four was the standard set, but three is quite as often the full complement.

Summer Tanager. Set three to four, my observations fail to determine anything further so far.

Red-eyed Vireo. Standard set, three. Variation, three to four.

White-eyed Vireo. Standard set, four. Variation, three to four. This bird does better than his bigger relative here.

Pine Warbler. Standard set, four. Variation, three to five. Per cent of variation, ten.

Prairie Warbler. Set, three to four.

Louisiana Water Thrush. Standard set, five; variation, four to five.

Yellow-breasted Chat. Standard set, four. Variation, three to four. Per cent of variation: 33 1-3.

Mockingbird. Standard set, four. Variation, three to five. Per cent of variation, nearly .50.

Catbird. Standard set, four. Variation, three to four.

Brown Thrasher. Variation, three to four. I used to think three was the standard, but now I incline to four.

Carolina Wren. Standard set, five. Variation, four to five. Per cent of variation small.

Brown-headed Nuthatch. Standard set, six. Variation, four to six. Per cent of variation, 25 to 50.

Tufted Tit. Variation, five to seven. I think six is the standard, but haven't sufficient data to determine.

Carolina Chickadee. Standard set, five. Variation, four to seven. Per cent of variation about 30, perhaps considerably more.

Blue-gray Gnatcatcher. Set, four or five. I don't know which is the standard, but will find out next year.

Wood Thrush. Standard set, four. Variation, four to five. Per cent of variation about 30.

Bluebird. Set, four or five.

Up to date this is the best information I can give as to the size of the sets our poor little birds lay down here. By "standard" set I mean the set which predominates in number on the first laying; on the second laying a smaller number is often more common.

C. S. Brimley.

Raleigh, N. C.

[Four eggs of the Cardinal are as frequently found as three. A very large series of their eggs (from all localities) now before me confirms this.—J. P. N.]

A Series of Eggs of the Tufted Titmouse.

The eggs of the Tufted Titmouse (*Parus bicolor*) vary in number from five to nine, although five or six is the number that is usually found.

The nest is loosely constructed, and is made of leaves, strips of bark, moss, hair, feathers, and sometimes snake skins. It is built in an old hole of a Woodpecker, or in a natural cavity, and is generally at a considerable height from the ground, although sometimes low down. Of the twenty-two sets of eggs now before me one nest was two feet from the ground; another, three feet; a third, five feet; three others, seven, eight, and eleven feet respectively; three were at fifteen feet; another, twenty; another, twenty-five; still another, twenty-eight feet; two were forty feet; another

forty-eight feet; while two were fifty feet; and two others sixty feet from the ground.

The eggs vary in shape from ovate to elongate ovate. The ground color varies from white to creamy.

Set I. May 5, 1888. Buncombe County, N. C. Six eggs, fresh. Light creamy white, speckled all over the surface with hazel: .80 x .58; .77 x .55; .79 x .56; .81 x .57; .79 x .54; .80 x .55.

Set II. May 15, 1888. Buncombe County, N. C. Seven eggs, incubation begun. White, speckled all over the surface with hazel: .74 x .55; .74 x .55; .72 x .55; .69 x .53; .73 x .53; .71 x .54; .68 x .50.

Set III. April 13, 1889. Leighton, Alabama. Six eggs, incubation begun. White, speckled with hazel. One of the eggs has bolder markings than the others, and in all of them the specks are closer together near the ends: .74 x .56; .73 x .55; .75 x .55; .73 x .55; .72 x .56; .72 x .56.

Set IV. May 5, 1889. Buncombe County, N. C. Four eggs, fresh. White, speckled and spotted all over the surface with vinaceous-rufous: .73 x .54; .73 x .55; .75 x .55; .76 x .55.

Set V. April 20, 1886. Lee County, Texas. Four eggs, incubation commenced. Light creamy, speckled, more heavily at the larger ends, with hazel: .72 x .52; .72 x .55; .77 x .50; .78 x .54.

Set VI. May 8, 1887. Edgecombe County, N. C. Five eggs, fresh. Light creamy white, speckled and spotted with hazel. The markings are scattered all over the surface, but are heaviest near the larger ends on all the eggs except one, where they are thicker near the smaller end: .80 x .55; .75 x .55; .79 x .55; .73 x .53; .74 x .54.

Set VII. April 28, 1888. Wake County, N. C. Six eggs, fresh. White, speckled, more heavily at the larger ends, with hazel: .70 x .56; .71 x .57; .72 x .54; .69 x .56; .69 x .56; .70 x .55.

Set VIII. May 2, 1888. Buncombe County, N. C. Seven eggs, incubation begun. White, speckled and spotted, more heavily at the larger ends, with vinaceous-rufous. There are also a few spots of lilac-gray: .74 x .56; .75 x .56; .75 x .55; .74 x .55; .72 x .55; .74 x .56; .70 x .56.

Set IX. April 26, 1887. Iredell County, N. C. Six eggs, fresh. Light creamy white, speckled all over the the surface with vinaceous-rufous. Near the larger ends the markings are heavier: .74 x .58; .74 x .57; .75 x .57; .73 x .58; .73 x .58; .72 x .55.

Set X. May 3, 1889. Buncombe County,

N.C. Six eggs, incubation advanced. White, speckled and spotted all over the surface (but more heavily near the larger ends) with chestnut: .73 x .55; .74 x .55; .74 x .55; .74 x .55; .74 x .55; .75 x .55.

Set XI. April 27, 1888. Buncombe County, N. C. Six eggs, incubation begun. Light creamy white, speckled with hazel: .71 x .53; .73 x .54; .72 x .54; .74 x .54; .73 x .52; .73 x .51.

Set XII. April 24, 1888. Buncombe County, N. C. Seven eggs, incubation begun. White, speckled and spotted, more heavily at the larger ends, with vinaceous-rufous, and a few specks of lilac-gray: .75 x .55; .74 x .56; .74 x .56; .71 x .58; .73 x .56; .73 x .54; .73 x .56.

Set XIII. May 4, 1889. Buncombe County, N. C. Six eggs, incubation advanced. White, speckled and spotted with chestnut. On two of the eggs the markings are principally confined to the smaller ends, but on the others they are at the larger ends; and on one egg the markings form a wreath. This last is a rare type of marking for this species, being the only one so marked in the whole series: .75 x .55; .74 x .55; .70 x .55; .69 x .52; .70 x .53; .72 x .56.

Set XIV. May 2, 1889. Wake County, N. C. Seven eggs, fresh. White, speckled and spotted all over the surface with hazel and a few specks of lilac-gray: .70 x .54; .69 x .55; .69 x .54; .71 x .54; .71 x .54; .70 x .55; .72 x .56.

Set XV. May 1, 1888. Edgecombe County, N. C. Five eggs, incubation advanced. Light creamy white, speckled and spotted with hazel. The markings are much heavier near the larger ends: .74 x .55; .74 x .55; .77 x .56; .73 x .55; .75 x .54.

Set XVI. April 25, 1880. Buncombe County, N. C. Seven eggs, fresh. White, spotted, principally at the larger ends with vinaceous-rufous, and a few spots of lilac: .70 x .55; .68 x .54; .68 x .55; .67 x .54; .65 x .55; .65 x .55; .70 x .56.

Set XVII. May 2, 1880. Wake County, N. C. Six eggs, incubation begun. White, very heavily spotted, almost entirely at the larger ends, with burnt sienna. Five of the eggs are thus marked, and so heavily in some instances that the ground color is obscured at the larger ends; but the sixth egg is almost entirely unmarked, except a few small specks of cinnamon-rufous and lilac-gray: .70 x .55; .69 x .52; .71 x .53; .70 x .53; .69 x .52; .68 x .51.

Set XVIII. May 2, 1888. Buncombe County, N. C. Six eggs, fresh. Light creamy white, speckled and spotted all over the surface, but more heavily at the larger ends, with hazel. There are also a few specks of lilac-gray on

some of the eggs: .74 x .56; .74 x .58; .71 x .56; .74 x .56; .72 x .55; .71 x .55.

Set XIX. June 7, 1889. Buncombe County, N. C. Five eggs, incubation begun. White, speckled and spotted with hazel. In the case of three of the eggs the markings are evenly distributed all over the surface, while on the other two they are heavier near the larger ends: .75 x .53; .75 x .52; .74 x .53; .75 x .54; .76 x .55; .72 x .54.

Set XX. May 6, 1887. Edgecombe County, N. C. Five eggs, fresh. White, heavily speckled and spotted with burnt sienna and drab-gray. There are markings all over the surface, but they are much thicker and heavier near the larger ends: .72 x .55; .69 x .56; .65 x .55; .73 x .54; .69 x .54.

Set XXI. June 8, 1888. Wake County, N. C. Five eggs, incubation begun. White, heavily spotted with burnt sienna. Have also a few spots of drab-gray. On four of the eggs the markings are so heavy at the larger ends that they almost obscure the ground color, while the fifth egg has fewer spots: .70 x .52; .68 x .53; .68 x .51; .68 x .51; .66 x .52; .68 x .54.

Set XXII. June 2, 1887. Buncombe County, N. C. Five eggs, fresh. White, spotted, principally at the larger ends, with burnt sienna, and a few spots of drab-gray: .77 x .55; .76 x .54; .74 x .53; .74 x .53; .73 x .53. J. P. N.

Do Minks Climb Trees Out West?

I see in the last number of the O. & O. that it is not unusual for woodchucks to climb trees, but whoever heard of a mink climbing a tree?

Early one morning last month, while walking with my dog near a marshy place, Ponto suddenly saw a mink and took after him, caught and threw him a few feet, when the mink picked himself up and ran up a pine tree near by with the agility of a squirrel. I did not know before that a mink ever undertook to climb a tree. E. P. Jenks.

North Brookfield, Mass.

Belding's Savannah Sparrow.

"There is little probability that such attempted discrimination will survive the official etiquette of the present flutter in American ornithology."—*Coues' Key*, page 873, 3d Revised Edition, 1890.

Nesting of Bobolink, 1888, 1889 and 1890.

June 7, 1888. Five eggs. Incubation well commenced.

June 7, 1888. Six eggs. Incubation advanced.

June 10, 1888. Six eggs. Incubation commenced.

June 11, 1888. Five eggs. Incubation nearly fresh (bloody veining).

June 11, 1888. Four young; one addled egg. Hatched.

June 12, 1888. Three young; two addled eggs. Incubation completed.

June 20, 1888. Five eggs. Incubation just commenced.

June 26, 1888. Four eggs. Incubation just commenced.

Total for 1888, forty-one eggs in eight nests.

June 2, 1889. Five eggs. Incubation commenced.

June 3, 1889. Six eggs. Incubation advanced.

June 5, 1889. Four eggs. Incubation fresh.

June 7, 1889. Five young. Incubation completed.

June 7, 1889. Five eggs. Incubation advanced.

June 7, 1889. Five eggs. Incubation advanced.

June 7, 1889. Five; four young; one egg. Incubation completed.

June 9, 1889. Five eggs. Incubation commenced.

June 10, 1889. Four eggs. Incubation advanced.

June 10, 1889. Five eggs. Incubation commenced.

June 13, 1889. Five; three young; two eggs. Incubation completed.

June 18, 1889. Five young. Incubation completed.

Total for 1889, fifty-nine eggs in twelve nests.

June 3, 1890. Seven eggs. Incubation well commenced.

June 3, 1890. Five eggs. Incubation just commencing.

June 3, 1890. Five eggs. Incubation commenced.

June 4, 1890. Five eggs. Incubation commenced.

June 4, 1890. Four eggs. Left three days; was found on the 1st with the eggs in them.

June 5, 1890. Five eggs. Incubation commenced.

June 5, 1890. Five eggs. Incubation commenced.

June 5, 1890. Four eggs. Found on the 3d, and contained four fresh eggs at that time.

June 5, 1890. Five eggs. Incubation commenced.

June 6, 1890. Five eggs. Incubation well commenced.

June 7, 1890. Six eggs. Incubation advanced.

Total for 1890, fifty-six eggs in eleven nests.

In 1888, one nest contained four; five contained five each; and two contained six each.

In 1889, two nests contained four each; nine contained five each, and one contained six.

In 1890, two nests contained four each; seven contained five each; one contained six, and one contained seven.

E. G. Tabor.

Meridian, N. Y.

Amenities of Exchange.

This title, by way of sarcasm.

The undersigned expressed his modest desire to make exchanges of skins and eggs at the beginning of the season of 1890, with high hopes; at the end of the season his retrospect convinces him that men are pretty much alike, consistent or inconsistent in all the relations of life.

To one correspondent he sent skins to the value of upwards of \$20.00, acceptable skins, too. At the end of the season there came a tardy promise of skins to a total value of, say, \$3.50, but one of which was wanted in his collection.

Another insisted, with much under scoring, that skins receivable in exchange "*must* be first-class." A bulky shipment was sent in reply, by express, with a request to be notified at once of amount of expressage that one half might be remitted. The value of skins sent was considerably greater than that of what was actually promised in return.

Here follows the essence of the reply: "Your skins will not be taken from the express office unless you send the amount due (a very small sum). If you send the money please send also the two skins omitted from the list you sent." With a smile of amusement the money was forwarded, and forthwith came, jumbled clumsily, with scant wrappings, into a box, an odd medley of skins,—one sparrow with skull exposed, several specimens, fly-specked, distorted and crumpled, some much

faded and weather-worn, none really fine, yet all "first-class!"

Out of a large series of eggs sent to one oölogist, two were mended and two chipped, but sent to complete the sets, either at half price or without charge. With much asperity came the answer, "I thought I made it clear to you that I wanted none but first-class eggs; these specimens will be sent back to you as soon as possible, if they hold together long enough." But they never came; and among the specimens sent in exchange was an egg of Anna's Hummer both chipped and cracked, but concerning which the sender was discreetly silent.

Another correspondent, and a good one, too, sent a set of Cassin's Kingbird, *no incubation*, and yet with holes twice the diameter of those in a set of Great Horned Owl collected by your correspondent. The lot of eggs in which these came was beautifully packed; but, alas! the bottom of the box, unstayed, had been crushed in, and five eggs were broken. The carefulness of the packing made me sorry to ask that the loss be made good, but the cheerful compliance of my fellow-sufferer made me sorrier still. It is the younger collectors that are most remiss. How refreshing, in contrast to some of the asperities and disappointments noted above, the large-heartedness of some of the veteran collectors, and the daintiness of their specimens! What a pleasure to unroll the faultless skins made by H. D. E. of Massachusetts, between supper and bedtime, and to examine the clean, fresh eggs, blown with tiny holes; and the carefully prepared nests of several amateur, *lovers*, whose names are widely known, but of whom it will, perhaps, be poor taste to speak in this connection.

May I venture a few suggestions? If skins are faded and worn, don't offer them to others without an honest introduction. If your specimens look as if they had just gotten out of bed keep them in your own collection until the shame of them shall have goaded you into better workmanship. At all events, bravely state to your correspondent the exact condition of what you offer him.

As to eggs, don't perforate fresh specimens, no larger than a half inch in diameter, with great holes into which you could thrust the end of your blow-pipe, and then leave them so that one can detect the mud-banks of dried yolk remaining by holding the specimen up to the light. If eggs are dirty, leave them as the bird left them, otherwise, lay no specimen down until both clean and dry. There is ab-

solutely no excuse, in the main, for large holes or unclean specimens. Eggs of Bell's Vireo—tender eggs—in my collection have perforations so small that a large sized common pin cannot be inserted; yet they are absolutely clean. "Small-holed eggs take time to clean?" Certainly, but if you are collecting in such quantities that you can't take time, you have passed from the sphere of the collector into that of the merchandiser, and the sooner others know this the better.

One may well be half ashamed of this little outburst of feeling; but all whose sense of nicety in these things is any wise keen will pardon it; and others are too thick-skinned to be long annoyed by it. *P. B. Peabody.*

Burlington, Kansas.

A New Way of Finding the Capacity of Eggs.

In a former issue of the O. & O. Mr. Egbert Bagg contributed a very suggestive article on runt eggs. It set me at once to work at a job at ciphering, and a test exercise in guessing. First, I turned to my very meagre collection of eggs, and measured the length of all that I could find of those which I used to ascertain the capacity of eggs in compiling the article on page 207, Vol. XII, of the O. & O. (December, 1887). I found only nine of the species, and their average measurement is as follows:—

	Inches.	Capacity.	Reduced to an ideal egg 1 in. long.
Royal Tern,	2.51,	4.772,	.302
Oyster Catcher,	2.42,	2.575,	.252
Clapper Rail,	1.75,	1.121,	.278
Wilson's Plover,	1.40,	.769,	.281
Nighthawk,	1.30,	.448,	.204
Boat-tailed Grackle,	1.22,	.471,	.259
Red-winged Blackbird,	.94,	.243,	.281
Nonpareil,	.75,	.113,	.269
Long-billed Marsh Wren,	.63,	.072,	.288
Average,			.268

I reduced each one to an ideal egg an inch long by cubing the length and dividing the capacity by it, as ascertained in the article above referred to. But before completing the operation I tried to do what I said in that article I couldn't, viz., guess from the general shape of the eggs which is the larger; or, in other words, which will be above the general average when reduced to the ideal inch egg. Three will, I think, exceed the others—Wilson's Plover, Long-billed Marsh Wren, and

Nonpareil, in the order named. I am also strongly inclined to think that the Nighthawk, Boat-tailed Grackle, and Clapper Rail will be below the average, and also in the order named.

Now, after all the "tall figuring" is done, I find the ideal egg to be .268 cubic inches in capacity. My first three guesses were tolerably correct, but not in the right order. So of the Nighthawk and Boat-tailed Grackle, but on the Clapper Rail I was "away out." As to the order named, it is only fair to say that at first I named the Boat-tailed Grackle for the smallest species, but afterwards changed my guess to the Nighthawk, before making out the reduction.

Now, assuming .268 cubic inches as the capacity of an egg that is an inch long, and using it as a standard, it is easy to ascertain approximately the capacity of any egg; or, to state it more plainly, I propose to use .268 as a constant quantity, by which to multiply the cube of the length of any egg, in order to ascertain, approximately, its capacity in cubic inches. Thus the two runt eggs which Mr. Bagg mentions in his article on page 59, Vol. XIII, of the O. & O., which measure .54 and .50 inches, would be respectively of the capacity of .0271 and .0456 cubic inches. The normal egg, which measures .68 inches in length, would contain .0831 cubic inches.

To illustrate still further this idea, I turn back to page 56. The last-mentioned egg of the Swamp Sparrow is .76 inches. Its capacity would be .1179 cubic inches. That of the last Cooper's Hawk, on page 52, which is 2.02 inches long, would be 2.2083 cubic inches.

Walter Hoxie.

A Series of Eggs of Merrill's Parauque (*Nyctidromus albicollis merrilli*).

It is but a few years since the Parauque has been recognized as a North American species, through its occupancy of a narrow strip on our border near the mouth of the Rio Grande river in Texas, and while I am unaware of its having been found nesting in any locality farther north than this, it is in the northern portion of the state of Tamaulipas, Mexico, a comparatively abundant species.

The Parauque, like all others of the Goatsucker family, deposits its eggs on the ground, making no nest, and often no apparent attempt at concealment other than chance surroundings may happen to afford.

Frequently the nest, or rather the place of deposit, is on an open place among stones, rocks or on sandy uplands, such as our common Night Hawk is accustomed to choose for its nesting site.

Like the other members of the family the Parauque lays two eggs of an elliptical oval shape, and more or less slightly approaching a point at the smaller end. They have a fine grained glossy shell, the ground color of which ranges from a rich cream color to a dark salmon-buff, more or less profusely marked with two classes of colors. One of these (which is nearly always of a cinnamon-brown shade) appears to be laid directly on the surface of the shell, and is the more conspicuous of the two in most specimens. The other is a pale shade of lilac, and has the appearance of being beneath the surface of the shell just far enough to obscure its brilliancy. These colors combined, in varying shades, and being applied in a great variety of shapes and markings, make it extremely difficult through the medium of the pen to convey any accurate idea of their appearance.

A series of twenty-five sets now before me, most of them taken during the season of 1890, show some interesting variations, and a description of a few of the most characteristic of them may be of interest.

They are principally from Tamaulipas, Mexico, the first set of the season being taken April 12th, fresh; and the last on June 17th in the same condition.

In size they show a considerable variation, the smallest egg in the series measuring .84 x 1.08, and the largest, .91 x 1.38.

The smallest set measure .83 x 1.20 and .85 x 1.20, and the largest, .91 x 1.38 and .92 x 1.28.

Set 436, *a*. Both eggs are of a rich creamy color, with a faint tint suggestive of salmon. The markings are evenly spread on, and are not at all conspicuous. Those that appear to be on the surface of the shell are of a cinnamon-brown shade, while another and less distinct set of markings, which appear to be under the surface of the shell, are of a darker hue and very difficult to name, but most nearly approach a lilac. In shape they are elliptical ovate, with ends just sufficiently defined to make the large and small distinguishable; size, 1.26 x .88 and 1.25 x .88. Taken May 27, 1890.

Set 341, *b*. This set has almost precisely the same ground color as the foregoing set, but the cinnamon surface markings are few and

indistinct, while the darker underlying colors are so profuse as to conceal the creamy ground in large patches. In shape this set differs from the former in being nearer round, and having greater capacity: 1.25 x .94 and 1.26 x .94. Taken June 10, 1888.

Set 589, *c*. This is a peculiar set by reason of the difference of size in the two eggs. The ground color of the larger is a shade lighter cream than either of the foregoing sets, but the brown markings are much heavier and more diffused, while the darker under shade is almost absent, so that the contrast between the ground color and the markings is very great and the effect quite handsome.

The smaller egg is of a very peculiar shape, approaching the pyriform. Ground color somewhat darker and toned up by profuse indistinct markings. Size: 1.14 x .84 and 1.22 x .95. Taken June 9, 1890. Fresh.

Set 643, *d*. This set is of a salmon-buff color, both eggs being of same shade. One of them is well sprinkled with brown spots averaging one sixteenth of one inch in diameter, the markings on this shade being ragged and irregular, while the darker, purplish shade, is representative in a smaller number of more regular oval spots which culminate in one large blotch of same color near the middle of one side, in size about three eighths of an inch by a quarter of an inch wide; the second egg very faintly marked: 1.30 x .94 and 1.27 x .92. Taken June 14, 1890. Fresh.

Set 668, *e*. A conspicuous feature in this large set of eggs is the great length of one of them. Both are handsomely marked with large areas of both shades, the brown or cinnamon color being so conspicuous as to almost conceal the darker shade. A noticeable peculiarity in the longer egg is a narrow band of light olive color that encircles it at its greatest diameter, which is well defined by a ridge. Slight granulations exist on the shells of both eggs. In the longer egg the brown blotches are massed at the greater end, the smaller being almost free from them. This is the largest set in the series, measuring .91 x 1.38 and .92 x 1.28. Found June 17, 1890.

Set 77, *f*. This set, although below the average size, is of the typical Goatsucker shape, an elliptical oval, one egg being slightly more pointed at the smaller end. This is perhaps the most striking set in the entire series, by reason of its peculiar, bold markings. The color is a rich salmon-buff, the marking of the two shades usually seen, but on one egg of the set are of a peculiar, wavy, vermicular form,

especially at the smaller end. This shape is found in both colors, and strongly resembles the markings found on eggs of Icteridæ or the Oriole family; measures 1.20 x .88 and 1.23 x .84. Found April 21, 1890.

Set 55, *g*. This is a set containing one egg about as light in color as any in the series while the other is of the typical salmon-buff. In the light egg the surface spots are of dark cinnamon-brown, some few approaching a burnt sienna, and, while comparatively few in number, they are large and scattered around the greater end, being unlike any other specimen in the series. April 12, 1890. Size: 1.27 x .86 and 1.26 x .87.

Set 515, *h*. A peculiar set by reason of great length of both eggs, their difference in color and peculiar markings, or rather absence of markings. One egg is of a very dark salmon color, sprinkled toward the greater end with a few fine specks of both shades. The other egg is of a lighter type, but more heavily marked than the former. Size: 1.34 x .93 and 1.35 x .90. Taken June 3, 1890.

Set 356, *i*. A large set of the ordinary shape, but the coloration is so singular as to be difficult of accurate description. In the first egg the two shades of markings are so intermingled and blended as to almost cover the surface of the shell and give it a beautiful mottled appearance. The other egg is similarly marked, but much more faintly, leaving the ground unobscured in numerous places. In this egg are many well-defined, crooked, wavy lines having the appearance of cracks on the shell. Measure: 1.25 x .90 and 1.26 x .93. May 21, 1890.

The nine sets described above fairly illustrate the entire series, while the remaining sixteen, though no two are precisely alike, are not sufficiently characteristic to make it worth while to describe them in detail, all of them closely resembling the type, in size and color and shape.

Thomas H. Jackson.

West Chester, Pa.

Nesting of the Pied-billed Grebe.

I have read with interest in the O. & O., from time to time, notes from collectors of different localities on the nesting of the Pied-billed Grebe. I have made this bird a special study for some time, and am always glad to see any notes of interest any collector may bring out.

During the past season (1890), I had a good

opportunity to observe them during the nesting season, and although I have often cautiously approached to where I could obtain a good view of the nest I have never yet been able to see a bird sitting.

The first nest found this summer was May 8th, and it contained two fresh eggs. Later in the day another nest was observed containing one egg. The eggs of both nests were only partially covered, and no old birds were in sight.

Returning to the same locality on the 18th of the month one nest was found to contain five, the other four eggs. Incubation was begun in both sets. This time the eggs were completely covered and were warm when taken from the nest.

Of fifteen nests examined this year six eggs were the most found in any one nest, and that only in one instance, the number being usually five, but occasionally only four were found. I have never yet found a complete set of eggs that was not entirely covered with decaying vegetation and the eggs always warm.

I have for some time been of the opinion that the Grebe in this locality does not sit on her eggs in the daytime for the purpose of incubating, I having never seen or heard tell of one being seen so engaged.

And although further observations may lead me to change my views, for the present I must believe that the Grebe does not sit on her eggs in the daytime for the purpose of incubating; but that the incubation is carried on largely by heat generated from the decaying vegetation of which the nest is composed.

I should like to hear from others, on this subject, who have observed them breeding, for if I am not right I wish to know it.

F. G. Pearson.

In the Haunts of the Water Thrush.

Gentlemen: If my little article will help you any you are welcome to it. My friend, Mr. J. B. Purdy of Plymouth, will send it to you as I do not remember your address. I am what you would call a "defunct oölogist." Since assuming professional responsibilities I have been compelled to abandon my old pet hobby, but once in a while—perhaps under the inspiring influence of a good cigar, alone in my office after hours, I get to thinking of the many, many happy days that were spent in following unbeaten paths through gloomy woodlands studying the ways of our

feathered friends, and like a flood of tears to a grief-stricken or perplexed woman, the unbending a little to the sentiment that is, to say the least, stirring in me, gives me great relief. Wishing you all prosperity,

I am faithfully yours,

W. C. Brownell, M. D.

Always with the approach of spring there are associated in my mind many pleasant recollections of past collecting trips made when the first flush of coming summer is in its infancy, from the time when the puss willows first show white till later, when tall rank weeds and grass and full leaved trees attest that the prime of the season is past.

Before me as I write is a beautiful setting of the eggs of that strange, shy bird, the Long-billed Water Thrush, collected under date of May 25, 1889, and presented to me by my friend and companion in many a long ramble, Mr. E. W. Durfee. Valued on account of the exceptional beauty of the set and more especially on account of the great friendship that exists between the collector and myself.

This calls to my mind a visit made to the haunts of this bird deep in the recesses of a wild, dark wood in company with Mr. Durfee's father toward the close of the collecting season in the summer of 1888. For a season or two back we had noted that these birds might be found in certain low, wet woodlands several miles back, in a sparsely inhabited section off to the north and east of Mr. Durfee's residence.

Knowing nothing at that time of the nesting habits of the bird, we had searched diligently but in vain for the nest and eggs of this clear-voiced Warbler. That they bred with us was only conjecture, but from close observation we were pretty positive they did.

This particular day, after a long and tiresome tramp, we entered a large swampy wood abounding in wind-fallen trees, water holes, and tangled underbrush. We soon became separated, searching for most anything that would add interest to our cabinets, when I came out upon a small inland pond made by recent rains, occupied here and there by mounds, brush, logs, etc., and the fallen trunk of a large elm or basswood tree, the roots of which on cleaving up left a base or wall of roots and earth rising some ten or twelve feet high. At once my attention was attracted by a Water Thrush which was exhibiting every sign of anxiety, flitting from log to log uttering repeatedly a peculiar, quick, sharp note,

jerking its tail and always keeping within a short distance, retreating in a narrow circle around the upturned roots of the fallen tree. I did not know where to begin the search, so, hallooing for my companion, together we watched the peculiar actions of the bird, deciding together that a nest was not far distant. We had not searched long before chance led me near the roots of the tree, and there, snugly tucked away among the finer roots, resting on a shelf of earth against this perpendicular wall, was the nest. Although it contained young birds nearly ready to leave the nest we were satisfied, having learned something of its nesting habits.

Further search revealed another nest about two feet from the one which contained the young, and from appearances it had been occupied by the Thrushes earlier the same year. About two weeks later Mr. Durfee paid another visit to the nest and found what we had overlooked the day of its discovery, a rotten egg, which he took, and now has in his collection.

Returning from college during a short spring vacation the following year I made my friends a call, and at once we decided our time could not be spent more profitably than to take to the woods and look up those Thrushes, which we accordingly did early the next morning, starting out in a steady, light rain. To give account of all our wanderings during that and the next day would tire both you and me, reader, and as my article was headed Water Thrush, however much I would like you to know about our delightful trip, for the most part I must confine myself, simply mentioning that we found a Ruffed Grouse nest containing two or three eggs which were taken later, ten eggs being the full set. Also, we found a set of Black-capped Chickadee's, several sets of Hawk's (Red-shouldered), Crow's, Nuthatch's, etc.

The funny part of the story is that I had the good fortune to find another nest of the Thrush, in similar locality, containing a single egg. Mr. Durfee promised to come later and collect the set for me. In about a week he went several miles back to the nest to find that my single egg was and always had been a Cowbird's egg. He was *mad*; not at me or at the Cowbird's egg, but at the several miles that lay between him and his home. It appears it was an old nest, and the Cowbird's egg had weathered the storms of nobody knows how many winters. Later in the season, however, Mr. Durfee was successful in taking two fine sets

of the Water Thrush of which the one before me is one. They are very beautifully marked, the groundwork of delicate cream having a peculiar crystalline appearance, marked more or less profusely over the entire surface with varying shades of reddish-brown and lilac. With us these birds are very rare, and when found are difficult of approach, save when in proximity to their nest. So far as I am able to learn from my own and Mr. Durfee's observations the nest is invariably placed in the roots of upturned trees, always in dark, damp, swampy woods far from the habitations of man, and that more than a single brood is reared in a season. *W. C. Brownell, M.D.*

So. Lyon, Mich., Sept. 12, 1890.

A Series of Eggs of Palmer's Thrasher.

The eggs of Palmer's Thrasher (*Harporhynchus curvirostris palmeri*) cannot be distinguished from those of the Curve-billed Thrasher (*Harporhynchus curvirostris*). Their principal variation, as shown in the following series of twenty-one sets now before me, is in size. Their ground color is almost always of a light bluish-green shade, and this is thickly covered with minute specks of cinnamon-rufous. Three eggs are the most common number, but four are often laid.

Set I. May 10, 1884. Pima County, Arizona. Collected by F. Stephens. Nest in a cholla cactus, three feet from the ground. Four eggs, fresh: 1.10 x .79; 1.14 x .75; 1.09 x .73; 1.09 x .74.

Set II. February 28, 1886. Near Tucson, Arizona. Collected by Herbert Brown. Nest in the east side of a cholla cactus, about two feet from the ground. (The cholla was two feet high, and six feet in diameter.) Made of coarse thorn twigs lined with dried wire grass and feathers. Interior diameter: top, four inches; bottom, two inches. External depth, nine inches; external diameter, sixteen inches. This nest was noted by Mr. Brown as being remarkable inasmuch as it was the first one belonging to this bird that he had ever seen or heard of, up to that date, that was lined with feathers, but he subsequently found others so lined. Three eggs: 1.24 x .80; 1.19 x .80; 1.15 x .80.

Set III. March 25, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in cholla. External diameter: top, six inches; depth, six inches. Inside: top, four inches; depth, three

and a half inches. Made of sticks, and lined with grass. Three eggs, incubation slight: 1.14 x .80; 1.17 x .84; 1.14 x .79.

Set IV. March 25, 1888. East of Tucson, Arizona. Collected by Herbert Brown. Nest in cholla, three feet from ground. Made largely of dried grass. External diameter: top, six inches; depth, five inches. Cavity: top, three and a half inches; bottom, three inches; depth, three and a half inches. Three eggs: 1.11 x .84; 1.11 x .84; 1.10 x .85.

Set V. April 15, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in cholla, four and a half feet above the ground. Made of twigs and dried grass. Outside diameter: top, eight inches. Inside: top, four inches; bottom, three and a half inches. Four eggs, incubation slight: 1.13 x .83; 1.14 x .80; 1.08 x .78; 1.10 x .79.

Set VI. June 28, 1886. Tucson, Arizona. Collected by Herbert Brown. Nest in cholla, lined with grass and feathers. Three eggs: 1.13 x .84; 1.11 x .80; 1.10 x .82.

Set VII. April 25, 1886. Tucson, Arizona. Collected by Herbert Brown. Nest in cholla, five feet from the ground. Three eggs: 1.09 x .83; 1.10 x .83; 1.09 x .81.

Set VIII. February 28, 1886. Tucson, Arizona. Collected by Herbert Brown. Nest in south side of cholla. Made of coarse twigs, lined with desert wire grass. Three eggs: 1.14 x .77; 1.11 x .78; 1.12 x .77.

Set IX. April 9, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest built on top of an old one, the new one being made entirely of grass. Inside: top, four inches; depth, two and three quarter inches. Four eggs, incubation slight: 1.14 x .80; 1.16 x .79; 1.18 x .76; 1.16 x .81.

Set X. May 12, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in tasaca. Outside: top, fifteen by seven inches. Inside: top, four and a half inches; depth, three inches. Four eggs, fresh: 1.16 x .79; 1.15 x .80; 1.10 x .80; 1.13 x .79.

Set XI. May 20, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest compactly made of coarse twigs, lined with dried grass and a few feathers. Three eggs, fresh: 1.20 x .77; 1.12 x .78; 1.05 x .77.

Set XII. March 25, 1888. Tucson, Arizona. Nest made of sticks and grass, lined. Cavity: top, four inches; depth, three inches: 1.09 x .81; 1.10 x .81; 1.05 x .80.

Set XIII. April 28, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in cholla, six feet from the ground. Outside: top, five

inches; depth, five and a half inches. Inside: top, four and a half inches; bottom, four inches; depth, three and a half inches. Three eggs, incubation slight: 1.10 x .80; 1.09 x .80; 1.09 x .81.

Set XIV. April 10, 1887. Tucson, Arizona. Collected by Herbert Brown, who remarks that "this was the first nest out of fourteen taken this year (1887) that contained three eggs." Incubation slight: 1.16 x .80; 1.11 x .79; 1.12 x .78.

Set XV. March 25, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in cholla; made of sticks and grass. External diameter: top, seven inches; depth, nine inches. Inside: top, four inches; bottom, three inches; depth, three and a half inches. Four eggs: 1.14 x .79; 1.17 x .80; 1.14 x .80; 1.16 x .80.

Set XVI. May 29, 1887. Tanque Verde, fifteen miles east of Tucson, Arizona. Collected by Herbert Brown. Nest in cholla, five feet from ground, and apparently only half built. Three eggs: 1.16 x .80; 1.18 x .84; 1.14 x .83.

Set XVII. May 29, 1888. Tanque Verde, fifteen miles east of Tucson, Arizona. Collected by Herbert Brown. Nest made of coarse twigs and lined with wire grass. Three eggs: 1.16 x .78; 1.17 x .78; 1.15 x .78.

Set XVIII. March 25, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in low, bushy cholla. Made of twigs and grass. Inside: top, four inches; depth, four inches. Three eggs: 1.08 x .78; 1.13 x .78; 1.09 x .78.

Set XIX. June 19, 1887. Tucson, Arizona. Collected by Herbert Brown. Nest in cholla, four feet from ground. Made of coarse twigs lined with dried grass. Three eggs, incubation slight: 1.11 x .83; 1.11 x .81; 1.18 x .81.

Set XX. May 29, 1888. Tanque Verde, fifteen miles east of Tucson, Arizona. Collected by Herbert Brown. Nest in cholla. Made of sticks and lined with dried grass. Three eggs: 1.20 x .83; 1.11 x .80; 1.11 x .79.

Set XXI. April 15, 1887. Tucson, Arizona. Collected by Herbert Brown. Nest in cholla, four and a half feet from the ground. Made of dead thorn twigs, lined with grass. Two eggs: 1.16 x .74; 1.13 x .74.

It will be noticed that all of the above sets, except the first, were collected by Mr. Herbert Brown, who has probably collected more sets of the eggs of this bird (as well as of Bendire's Thrasher), than any other collector; and this series was selected by him for the express purpose of showing all the variation to which these eggs are subject.

As before remarked, the variation in the eggs of this bird is very slight. The ground color is very constant in its tint, although some sets have a somewhat brighter hue than others. The typical egg is evenly covered all over the surface with minute specks of cinnamon-rufous, but in a few sets the markings are fewer in number and more thickly grouped around the larger ends than on the other parts of the eggs. In a few specimens there are larger spots of a darker color—in some cases burnt umber—but this is apparently a rare type of markings for the eggs of this species.

J. P. N.

Nesting of the Short-Billed Marsh Wren.

Not having seen anything in the O. & O. about the Short-billed Marsh Wren (*Cistothorus stellaris*) I thought it might be of interest to some of its readers to hear my experience with them.

In a narrow belt of thick, wild grass near the edge of a marshy piece of ground, having a small stream running through the centre covered with a dense growth of cattail flags with now and then a bunch of willows, is where I first saw the Short-billed Marsh Wren and afterwards found their nests. Although I have done considerable collecting in the same locality for the past few years I have never seen or heard one of the birds there until this year, and I think they have not been there before.

On June 3d I saw but one pair there, and others came at different times until on July 6th there were four pairs in the marsh.

On June 12th there was a nest completed, and supposing there would be eggs laid in it I left it, and afterwards found it to be nothing but a duplicate nest. On the 22d I found a nest in the same vicinity containing some pieces of shells, the eggs having been broken in some way.

On July 6th I collected two sets of their eggs, one of three fresh ones—an incomplete set. These were within a few yards of where I found the nest containing the broken ones, and I think they were laid by the same bird. In the other set there were seven, with incubation advanced.

I also found two nests of another pair, and a week later they had another nest completed, and on the 20th I went there and could neither see nor hear a wren in the marsh. I was there

again afterwards and could find none, so I supposed they had all left, but on Aug. 13th my father, in company with a young man (who is interested in birds), being near there thought he would show him some of their nests, so he found one, and supposing it to be empty stuck his finger into the entrance and broke one egg out of a set of six that it contained, the remainder of which he got out, and although they were badly incubated I saved them all right.

The nests were built in the wild grass about one and one half feet high, being about eight or ten inches from the top of the grass. They are globular in shape with a small hole in one side for an entrance. The inner nest is composed of the dead blades of wild grass, lined with cattail down, having the green grass woven around it so as to conceal the dry grass of the nest, making them difficult to find.

Like their Long-billed cousin they build four or five duplicate nests. The duplicates are not as nicely built as the ones containing eggs, and have none of the soft downy lining of the others. I usually found the male bird in some bush within a few rods of the nests, singing his song of *chip, chip, per chick, chick, chick and chip, chip, chr-r-r-r*, uttered distinctly.

The stomach of a male that I collected contained numerous small insects.

The eggs are pure white, unmarked; set one are nearly elliptical in shape, and measure as follows: .63 x .47, .63 x .46 and .63 x .48. Set two are of the usual shape, and measure .62 x .47, .60 x .48, .59 x .47, .61 x .47, .64 x .48, .60 x .48 and .61 x .49. Set three are shaped like set two and measure .60 x .46, .58 x .44, .59 x .45, .61 x .46 and .61 x .45.

Although Davie says they are very fragile, I only found one egg in the lot that seemed any more so than is usual among eggs of their size.

E. W. Duffee.

Wayne Co., Mich.

A List of the Birds of Minnesota.

The list which appeared under this head in September number should have been signed by George G. Cantwell, Colorado Springs, Col.

Editor.

American Raven in Connecticut.

On September 18, 1890, a specimen of the American Raven was taken at this place.

O. J. Hagenaw.

So. Manchester, Conn.

Nesting of the Blackburnian Warbler.

Last June, my brother and I left Boston to visit a friend who had a place near the foot of Mount Monadnock, N. H. The morning after our arrival we started for a stroll down the road which ran by the house—he with a fishing rod, I with a gun—and after a while came to a grove of thirty or forty large hemlocks, from sixty to seventy-five feet high.

As there did not seem to be anything there we were about to continue our walk, when I heard a note something like the song of a Black and White Creeper but much stronger, and almost immediately discovered a Blackburnian Warbler (*Dendroica blackburniae*) perched on a maple near the grove. But we were seen at the same instant and the bird with its mate, which was near by, flew off over the tree-tops, leaving us without any hope of seeing them again. All the same, we concluded to look around the grove, but could find nothing but two Chipping Sparrows' nests and a suspicious looking bunch near the end of a branch of one of the hemlocks, about sixty feet from the ground. But as such bunches are common enough anywhere, and we could see the sky through this one, I thought it would be of no use to examine it more closely. Therefore we went on down the road but did not find anything else, excepting one trout and three "suckers" that my brother caught.

The next day we passed the grove again and again we heard the Blackburnian Warbler singing. Thinking it strange that it should have come back, we crept into the grove as quietly as possible and had just come to the point from which the "bunch," found the day before, could be seen through the branches, when the Warbler, with its bright orange throat contrasting strongly with the dark background of the grove, darted out of the trees a little way off, straight up to the bunch, and, hovering over it an instant, settled down upon it. I have never found a nest so suddenly and unexpectedly as this one, and I was not long in getting up to it. Then I could see three eggs, but could not reach them as they were too far out on the branch. Wishing to get the full set, we left the nest until next day, when I succeeded in getting the nest by tying the branch to the one above it and then cutting it off, after which I drew it in and thoroughly enjoyed looking at the eggs, five in number, before touching the nest.

As soon as I commenced cutting off the

branch, both birds who, until then, had only watched from a distance, became very much excited and began flying around, sometimes within two or three feet of me, and uttering sharp chirps. One of them lit on the branch, although it was shaking considerably, so that there can be no doubt that it belonged to them. But in order that there should be no doubt at all I shot the male, who, when he saw that he could do nothing, had perched himself on a neighboring branch where he was pluming himself as if nothing had happened.

The nest was about sixty feet from the ground, seven feet from the trunk of the tree and four inches from the main stem of the branch. It was set into a thick cluster of rather small twigs which held it firmly so that it could not blow away; for, with the exception of the last morning it was blowing a gale, day and night, during our entire stay. It is composed of hemlock twigs, rootlets and a few pine needles, with here and there a bit of Spanish moss, all woven rather loosely together and lined with horse-hair. The diameter externally, three and a quarter inches; internally, two inches, and it is two inches deep. The bottom is so thin that it can easily be seen through,—it was this that almost caused our overlooking it.

The eggs vary very little in size and shape, being .68 x .53, .67 x .54, .67 x .54, .67 x .53, .67 x .53. They are greenish-white in ground color, spotted and blotched all over, but most thickly at the larger end, with different shades of purple and brown which in some is nearly black. They were collected June 7th, and incubation had just begun, so that they must have been all laid when the nest was first found, although I could see only three. C. W. B.

Swainson's Warbler in Hale County, Alabama.

On the 6th of September, while collecting about four miles southwest of Greensboro, Ala., I took a specimen of Swainson's Warbler. As far as I know, this is the first recorded instance of the capture of this warbler in Alabama.

Wm. C. Avery.

Orchard Oriole at Nova Scotia.

A ♀ specimen of the Orchard Oriole was taken at Shut-in Island, Nova Scotia, on September 6th, by myself. Harry Austen.

Ornithology of a City Garden.

I thought it might interest some to see the variety of birds that were observed in a garden nearly in the heart of a city of about 50,000 population, during the northern migration. The garden is fringed by tall hemlocks and lilac bushes, and within are fruit trees, raspberry and currant bushes, and a variety of shrubs, plants, and flowers.

I will begin with January, though strictly speaking the northern migration has not yet begun. My notes show the following:

Jan. 1. Red-breasted Nuthatch still around garden; has been there for some time.

Jan. 4. Saw some American Crossbills feeding on cones of the hemlocks in garden; they seemed mostly males.

Jan. 17. Crows and Black-cap Chickadees common in garden.

Jan. 18. On going into garden this morning saw large flock of Crossbills which had been feeding on cones; as usual in such cases I didn't have my gun.

Jan. 21. Saw a pair of Crows in garden this morning, and as they have been there for some time I believe they contemplate building this year, as they built a nest here last year and lost a set of eggs for their pains. They were continually harassed and chased from the nest by the Bronzed Grackles building near.

Feb. 1. Saw a small flock of Pine Finches which flew out of garden.

Feb. 5. Crows and Chickadees common in garden.

Feb. 11. Saw large flock of female Pine Grosbeaks in garden but did not disturb them as I thought they would attract the males. This is their first appearance in this section, in, I believe, five years.

Feb. 14. Saw a solitary female White-winged Crossbill feeding in hemlocks in the garden.

Feb. 17. Saw two male and two female White-winged Crossbills in the hemlocks.

Feb. 18. A fine male American Crossbill perched on top of the hemlock trees and began to whistle for its mate, which soon appeared.

Feb. 19. More White-winged Crossbills in garden.

Feb. 22. Saw two Great Northern Shrikes enjoying Sparrow pie in the garden.

March 4. The man in charge of the garden hearing a great commotion in the hemlock trees caused by Crows, investigated, and

found them harassing a fine Barred Owl. The Owl found consolation in a charge of shot.

March 26. To-day dawned clear and bright and brought with it to the gardens Song and Tree Sparrows, Robins and Bronzed Grackles.

March 27. Snow fell and the birds have disappeared. Saw Sharp-shinned Hawk eating Sparrow in hemlock trees.

April 5. Male Golden-crowned Kinglet in garden.

April 9. Saw male Purple Finch, singing on top of a hemlock.

April 10. Saw Chipping Sparrow in garden.

April 11. Observed Slate-colored Juncos in garden.

April 14. This morning observed Hermit Thrush, Flicker and Yellow-bellied Woodpecker, and heard Fox Sparrow in garden.

April 15. To-day observed Cowbird, Fox Sparrow, Juncos, Yellow-bellied Woodpecker, and a Redpoll which was feeding on the cones in the manner of a Pine Finch; heard Field Sparrow.

April 22. Saw large flocks of Fox and White-throated Sparrows and Yellow-bellied Woodpeckers. The Woodpeckers would tap a maple and as soon as they left the tree the English Sparrows would congregate and drink the sap.

April 23. Saw flock of Ruby-crowned Kinglets, all males.

May 3. Warbling Vireo and House Wrens in garden.

May 4. Observed Yellow and Parula Warblers, and Least Flycatchers.

May 5. Female Ruby-crowned Kinglets have arrived.

May 6. Redstarts and Pine Finches in garden.

May 9. Noted Maryland Yellow-throat as new arrival.

May 10. Numbers of birds arrived to-day, among them Catbird, Brown Thrasher, Wood, Wilson's and Golden-crowned Thrush, Magnolia, Blackburnian, Yellow-rumped, Black-throated Blue and Nashville Warblers, and Towhee.

May 13. White-crowned Sparrows in garden.

May 14. The new arrivals for to-day are Black-billed Cuckoo and Baltimore Oriole and Scarlet Tanager. Many others probably passed through without my notice.

The Pine Finches, which from their remaining so long led me to think they would nest here, departed on the 27th of May.

Chas. C. Trembly.

Utica, N. Y.

THE
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A Monthly Magazine of

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ESPECIALLY DEVOTED TO THE STUDY OF

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and to the

INTERESTS OF NATURALISTS.

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Editorial.

The time is now approaching when it behooves the ornithological collector to look about him and see who his friends are, before casting his vote for our coming administration. Our readers will remember the fight made one year ago in behalf of collectors, by the MASSACHUSETTS LEAGUE OF ORNITHOLOGISTS, in the effort to have due recognition given to a large body of educated, intelligent people, by giving them a representative from their own ranks on the Fish and Game Commission, in the person of one who was able to, at least, act intelligently on the subject of the Protection of our Birds, and who would have compelled attention to the requests of collectors, a thing which, so far, they have hardly been able to secure, and never any action on the matter; and they will also remember (surely those of them who are members of the league will do so) the reception with which their numerous signed petition was met, and the pusillanimous manner in which the matter was postponed until it was too late for any harm to be done in the way of losing votes to the administration then in power, because the appointment was inimical to the interests of the petitioners.

But the present administration can rest assured that their action in the matter during the past year has been duly noted and that

this year there has been plenty of time to make up their minds upon the subject.

We do not believe that the taxidermists and ornithologists of this state want the earth. But we do think that they are entitled to one little spot upon which to plant their feet, and this spot has been wofully narrowed down, until a man with a medium sized foot has not got room to brace himself.

The pseudo naturalists, who study the birds from their parlor windows overlooking Boston Common; the feminine sentimentalists, in whom a good tramp in the bracing country air would produce a suffusion of the conglomerate matter which they call brains; the dude sportsman, who only shoots when he has on his corduroy and canvas, and who faints at the idea of killing a bird unless it is classed as a game bird, but who can relish a dirty English Sparrow if it is only called Reed-bird on the *ménu*, and the market-man, redolent of cold storage game, have all combined to shut out the student of Natural History, to whose days and nights of hard work is due much of the success and honor of our Commonwealth. But the time will come when this long-suffering class will rise in their might, and those who have been their friends will be remembered; and in the meanwhile we think from the quiet work which is being done this fall that they propose to try their strength whenever the opportunity is given.

Constant dropping wears away the hardest stone, and surely this little band is performing a deal of patient, enduring labor this year, and time will show what the result will be. We do not think that the present administration can afford, in the aspect of the situation to-day, to overlook a body which is so patient in its work against injustice,—patient because it knows it has right on its side.

Brief Notes.

We are busy.

The display made by H. E. Austen in taxidermy is simply marvellous, occupying 70 feet of space, and reflects the greatest credit on that gentleman's taste and science. It consists of 14 large cases—No. 1 devoted to the grouse family of birds; No. 2 to the gull family; No. 3 to the flamingo, nest and eggs; Nos. 4 and 5 to ducks; No. 6 to the fish hawk, nest and young, and the goshawk, nest and young; No. 7 to owls; No. 8 to herons and egrets; No. 9 to bitterns, rails, gallinule, etc.; No. 10 to curlew, avocets, plover, willet, ruffs, etc.; Nos. 11, 12, 13, and 14 to small birds of

all descriptions. He also shows the following mounted animals: wild cat, lynx, fox, jackass rabbit and Nova Scotia wild rabbit.—[Halifax Chronicle, Sept. 25.]

Correspondence.

Editor of O. & O.:

At the Halifax (N. S.) County exhibition held at Dartmouth during the past month (September) Mr. Harry E. Austen, the enthusiastic taxidermist of that place, exhibited a grand collection of stuffed birds. It consisted of fourteen large cases and occupied about seventy feet of space. Most of the specimens had been obtained in Nova Scotia, and were exquisitely mounted—showing the work of a master-hand. Among those which had been “set up” from skins was a magnificent pair of Flamingoes, together with nest and eggs. The attitudes of these birds were faultless and showed how near perfection Mr. Austen has brought his art. Other cases contained numerous specimens of Grouse, Hawks, Owls, Gulls, Ducks, Herons, Bitterns, Egrets, Rails, Gallinules, Plover, Curlew, and other shore-birds, and there were also four cases of the smaller land-birds, which, in many instances, were accompanied by nests and eggs. The display was doubtless the most attractive feature of the exhibition and was awarded first prize with special recognition. Besides the birds the same gentlemen exhibited a wildeat, Canada lynx, fox, jackass rabbit, and varying hare; all mounted with equally good taste.

Observer.

Editor of O. & O.:

It may be new to the readers of the O. & O. to know that the Loon will breed in the same nest after being disturbed; so here goes. It was my good fortune to be up on the Grand Manitoulin Island, Canada, trouting early in July, this season (1890).

Sunday, July 6th, being a day of rest, our guide who had taken two sets of Loon from the same nest for me this season late in May and June, said, “Boss, if you would like to see a Loon’s nest we will take the old boat and go over and see if she has laid any more.” This, of course, was very welcome news, so off we put to a mucky deposit of, say, twenty-five acres in the rear of our guide’s home. At the lower corner of the lake on a shoal forty feet from shore was a pile of lily roots, etc., from the bottom of the lake similar, “only smaller,” to a muskrat’s house. Mrs. Loon vacated it

by sliding off into the water and coming up at safe distance, where she set up a mournful shriek for a few moments, later on taking wing and going to the next lake for a “visit with a neighbor,” as the guide styled it, saying “every morning both pair visit each other.” Judge my surprise at so late a day to see deposited on the flat pile of rank trash two fine showy eggs. My guide took for me, in 1889, two sets of two from a nest within two rods of same spot, and again, in 1888, two from almost the same spot. Do not know if it is the same pair of birds, but for the past three years one pair of birds have located in this lake, building their nest in nearly the same spot.

The last set of eggs varied greatly in size, one being large as eggs in the May set, but the other so small that you would not think them a set if not positive as I am.

George E. Harris.

New Publications.

The O. & O. Semi-Annual has passed from Mr. Foote into the hands of C. C. Maxfield. Mr. Maxfield, assisted by J. B. Richards, Fall River, Mass., will act as editor. Mr. Maxfield has been a subscriber for some time to the O. & O., and we wish him success. *Semi-Annual*, published by C. C. Maxfield, box 224, Danbury, Conn.

Fable of Madame Mourning Dove and Mrs. Golden-crown.

“Oo! Oo! why is it,” whimpered Madame Mourning Dove to neat little Mrs. Golden-crown, one clear June morning, “why is it that when that two-legged friend passed by your obscure little domicile, and you just slipped away quietly, he left no leaf unturned until he found it, while although I used every effort to attract his attention to my large and lofty abode he scarcely seemed to notice me.”

“I’ll tell you, in a jiffy, in a jiffy,” warbled trim little Mrs. Goldy, “but no, my dear, I really cannot say, unless, perhaps, he thought it wasn’t worth the while.”

Moral: When a small man with a large mouth buttonholes you on the street to tell his little story, bid him good morning.

P. B. Peabody.

Burlington, Kansas.

NOVEMBER, 1890.

VOL. XV.

NO. 11

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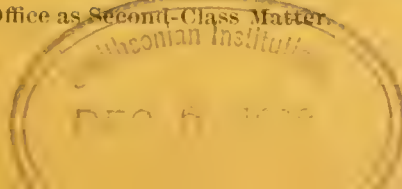
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No. 11.

A List of the Summer Resident Birds on the South-western Coast of Maine.

The following is a list of the birds observed by me on the Maine coast between Bath and Mt. Desert Island, inclusive. As I spent but the two months of July and August on the coast, my list is necessarily very incomprehensive; but it may give a fair idea of the commoner summer birds.

The shore between these points is very rocky, with but few sandy beaches. The low, thick woods of spruce and hemlock come almost to the water's edge; and with the grasses compose most of the vegetation. Almost everywhere the shore is girt with small islands; some of them covered with woods, and others rocky and grassy.

7. Loon. Saw one of this species near Seal Harbor, Mt. Desert. It seemed to be a young bird.

51a. American Herring Gull. Common summer resident. Usually seen away from the mainland, near the rocky ledges and islands. The dusky-colored young were nearly as common as the old birds.

58. Laughing Gull. Noticed a few near Camden, in a flock of the preceding species.

70. Common Tern. Common out at sea, but far less abundant than the following.

71. Arctic Tern. On July 5th I visited a Tern colony at Pumpkin Rock, near the mouth of Boothbay Harbor. The island was a ledge covered with grass, only two or three hundred yards in length, but notwithstanding its size there was a colony of about 500 terns upon it. Owing to the rough sea I was unable to land, but with a friend I managed to shoot ten birds from the boat; eight of these were of this species.

72. Roseate Tern. Shot a ♀, July 5th, on Pumpkin Rock. I think the specimen is a young bird.

106. Leach's Petrel. Common out at sea. A few come into Boothbay Harbor.

165. White-winged Scoter. Rather common out at sea, in flocks of about a dozen. Especially numerous near Castine. I also saw another species of *Oidemia*, which I was unable to identify.

194. Great Blue Heron. Common. Saw one at Boothbay. In Penobscot Bay on Long Island, opposite Castine, there was a colony of about eight. Shot an adult ♀ at North Haven.

246. Semipalmated Sandpiper. Common. Saw a flock of fifty on a small ledge near Bobson's Island, Penobscot Bay, and secured several specimens. At Nor' East Harbor, Mt. Desert, saw a flock of about twenty-five. Also saw them at Squirrel Island, Boothbay Harbor.

263. Spotted Sandpiper. Common on the islands, and along the shore of the mainland.

274. Semipalmated Plover. Common. Collected specimens at Camden, Bobson's Island, and North Haven.

300. Ruffed Grouse. Saw three or four at Boothbay, in the thickets.

332. Sharp-shinned Hawk. Shot an adult at Boothbay, and an adult ♀ at North Haven.

352. Bald Eagles. Saw a pair near Bath.

364. American Osprey. Common. At North Haven, I found two empty nests, and we secured two adult ♀ and a young ♂.

388. Black-billed Cuckoo. Secured one specimen, and saw several others at Boothbay.

390. Belted Kingfisher. Saw a pair throughout the summer at Boothbay.

412. Flicker. This was the only Woodpecker I saw, and I noticed but four or five at Boothbay.

420. Nighthawk. Saw two at Boothbay, two at Bar Harbor, and a flock of thirty or forty at Squirrel Island, August 28th.

423. Chimney Swift. Uncommon. There were about four pairs at Boothbay.

428. Ruby-throated Hummingbird. Uncom.

mon. Saw one at Seal Harbor, Mt. Desert, and another at Boothbay.

444. Kingbird. A few pairs at Boothbay and others at Camden.

456. Pewee. Saw several at Boothbay. There were other Flycatchers which I was unable to secure.

477. Blue Jay. Saw two pairs at Boothbay, in the spruce woods.

488. American Crow. Common. I obtained one abnormally small ♂, which I took at first to be *C. ossifragus*.

495. Cowbird. Shot a young ♂ at Boothbay.

498. Red-winged Blackbird. On a farm back of Boothbay my friend, Mr. Bucknell, saw a flock of eight. I shot a young ♂ near Castine.

517. Purple Finch. Common at Boothbay, and at Seal Harbor, Mt. Desert.

529. American Goldfinch. Abundant at Boothbay.

540. Vesper Sparrow. Uncommon. I secured a ♂ at Boothbay, and saw two others.

542a. Savannah Sparrow. Shot specimens at Boothbay, Castine, Bobson's Island, and Green's Landing. The common species of this genus.

549. Sharp-tailed Sparrow. Shot seven or eight specimens at Castine, and two or three at Bobson's Island.

558. White-throated Sparrow. Very common at Boothbay. Also obtained specimens on some of the islands. They were singing throughout July at Boothbay.

560. Chipping Sparrow. Rather uncommon; saw this species at Boothbay and Camden.

563. Field Sparrow. Uncommon. Obtained an adult ♂ at Boothbay, and saw two at Camden.

567. Slate-colored Junco. Uncommon. Saw four or five at Boothbay; and obtained some young specimens on a small island in George's Harbor.

581. Song Sparrow. Abundant almost everywhere.

583. Lincoln's Sparrow. Shot a young ♂ July 14th at Boothbay. On August 9th, shot one young ♂, one adult ♂, and two other adults, on Bobson's Island, Penobscot Bay. The island seemed inhabited almost altogether by the genus *melospiza*, principally *M. fasciata*.

587. Towhee. Common at Boothbay. I saw a number of young birds here.

598. Indigo Bunting. Rather common at Boothbay. Saw a beautiful ♂ at Camden.

611. Purple Martin. Saw about a dozen at Camden, Aug. 3d.

612. Cliff Swallow. Abundant at Boothbay. I found several houses, the eaves of which were lined by their mud nests. In the first week of July several of the nests contained young, nearly fledged.

613. Barn Swallow. Rather uncommon at Boothbay. Abundant at Camden.

614. Tree Swallow. The most abundant bird at Boothbay during the first two weeks of July, but at the end of the month all except two or three pairs had left.

616. Bank Swallow. Shot an adult ♂, and saw two others at Bobson's Island.

619. Cedarbird. Common at Boothbay.

624. Red-eyed Vireo. Rather common at Boothbay.

636. Black and White Warbler. Abundant at Camden, and common at Boothbay. This is a bird of the woods.

648. Parula Warbler. Common at Boothbay.

652. Yellow Warbler. Common at Boothbay in the open bushes.

655. Myrtle Warbler. Commoner than the preceding species at Boothbay and elsewhere.

657. Magnolia Warbler. Rather common at Boothbay.

659. Chestnut-sided Warbler. The most uncommon species of the family I met with. Shot a fine ♂ at Camden, August 4th, and saw another at the same time which I was unable to get.

667. Black-throated Green Warbler. The most abundant warbler at Boothbay, and next to No. 614 perhaps the commonest bird. This is also a bird of the thick woods.

671. Pine Warbler. Shot a young ♂, and saw an adult at Boothbay.

674. Ovenbird. Common at Boothbay.

681. Maryland Yellow-throat. Common at Camden and Boothbay.

687. Redstart. Abundant at Boothbay. I saw two or three at Camden.

705. Brown Thrasher. I saw one at Boothbay.

735. Chickadee. Abundant at Boothbay and Camden, in the woods.

748. Golden-crowned Kinglet. Saw four at Boothbay. On an island near Seal Harbor, Mt. Desert, I came across a colony of about fifty of these birds.

759b. Hermit Thrush. Shot an adult and a young ♂ at Boothbay.

761. Robin. A few pairs at Boothbay. About a dozen on Bobson's Island.

766. Bluebird. Saw one or two pairs at Boothbay. *Thomas H. Montgomery, Jr.*

A Strange Occurrence.

I was wandering slowly along, gun in hand, early one fall morning; the sun was just warm enough, the sky just blue enough, and the ground just dry enough to make me feel happy and contented all through. I walked along a high, steep bluff overlooking the lake, a bluff grown over with cedars, hazels, and a few stately pines, through which flashed occasional glimpses of placid waterscape. I seated myself at the foot of a great pine, absorbing sunshine through every pore and breathing the racy essence of pine needles. I was just becoming drowsy, my eyes half closed, and unconscious of all sounds but a dreamy humming, when I suddenly started up, broad awake. At first I was dazed, and unable to imagine the cause, but after rubbing my eyes I saw that the bushes and tree tops were full of little warblers hopping and skipping from limb to limb. How queer I felt! Every surrounding object became larger and larger, until it was of gigantic size. I was very much frightened until a Chickadee, bigger than the largest Eagle ever seen, hopped down and remarked kindly, "This the way, way, way." Then I noticed that the former peepings had changed, and in their places hundreds of tinkling voices were exclaiming, some in delight at a new find, some in fear, while over all was heard the steady refrain, "to the South! Southward!"

It did not seem in the least strange that my arms had changed to two black wings and that I had acquired a soft feathery covering of a beautiful yellow. I hopped bravely upon a twig and began to search for food to satisfy my newly found hunger. A hazel bush first presented itself to my sight, so into that I flew. Everyone else was hurrying along, hunting through their trees in a twinkle and flying quickly to the next. All the time the great Chickadees were hopping and flying along at the head of the column showing the way for those that followed, while a company of Nut-hatches blew their little tin horns to keep us all together. I took plenty of time; having found a good bunch of leaves I stayed there, picking off every unfortunate bug that presented itself. They tasted good, and I was very loth to leave

that bush; still the others were so far ahead that I was about to fly along, when I was suddenly surrounded by another little band of the same dress as myself and feeding quite as deliberately. Soon one approached me and remarked, "This is the way I like to travel, eat when you eat and journey when you journey. Then, too, the Chickadees are so very accommodating; every little island or patch of woods has its band ready and willing to show us the path through their country."

"Come on, come on!" they all cried, and following them I soon found myself at the head of the procession.

"Why not go up into the tops as those little fellows do?" I inquired of my neighbor, a demure little thing without the sign of a black bonnet.

"Oh, you can if you want to," she replied carelessly, "but we prefer it down here."

Now I was just obstinate enough to desire to find out for myself how it seemed to be swaying around so high up in the breezes, so up I climbed by easy stages to the topmost spray. Here I found a band of blue-coated yellow-vested fellows accompanied by our common friend, the Redstart. I caught a good deal of game on the wing, for in that I was quite proficient, but found the insects too small for my appetite. Still I enjoyed it very much, and was nearly beginning to pity my deserted comrades, when, zip! a huge brown body shot by, from which an immense claw made a grab at me. I don't know how I escaped, but he missed and bringing up suddenly on a big limb disclosed the flashing eyes and bristling feathers of that dreaded tryant, the Sharp-shinned Hawk. At that moment, way down below, a frightful roar burst upon my ear. At the same instant the poor Hawk fell limp and lifeless from his perch.

I immediately fled to the lower regions again, quite determined there to remain. I had proceeded but a short distance when I heard one of my companions crying out in the most agonizing tones. You may be sure I flew at once to the rescue, and approaching as closely as possible to the sound, paused to reconnoitre. After a moment I discovered that what I thought to be a stump was in reality one of that dreadful species, man, and that from him the sounds proceeded. He was about thirteen years old, with long brown hair and pipe-stem legs inclosed in rubber boots. He bore a light gun and had a fishing creel over his shoulder. I made some such remark as "what do you want?" approaching very

close to him and looking at him sideways. At this he muttered under his breath, and very excitedly "A Wilson's Black-cap Warbler, by jingo! note *chez*." I had not uttered any note I am sure. Pretty soon my comrades came to see what was the matter, at which he became still more excited and called in a voice of thunder, "O come here quick, here's about fifty million Wilsons!" He then backed slowly off, watching me intently, raised his gun, and before I knew what was going to happen a blinding flash sprang forth, followed by a sudden shooting pain through my whole body. I lost my hold, all grew dark, and I fell down, down, down, landing with a thump, and found myself seated under an old pine tree busily rubbing my eyes.

The sun was filtering through the leaves in little golden threads, the dreary hum of insects was heard, while the Chickadees still exclaimed, "this the way, way, way," and the Nuthatches still blew their little tin horns.

Stewart E. White.

Nesting of the Summer Tanager at Raleigh, N. C.

The Summer Tanager (*Piranga rubra*) is by no means uncommon at Raleigh during the summer months, inhabiting both mixed woods and pines, being perhaps more common in the latter.

About the middle of May the Tanager looks out for a nest site, usually selecting one of the long lower limbs of an oak or pine, and on this limb, toward the end away from the trunk, the nest is placed. Sometimes, however, the Tanager prefers to place her nest in the very top of a small pine sapling instead of towards the end of a long limb. In both cases a comparatively open place in the woods seems to be preferred to a more retired one, the nest being often in a tree close to a road or over a foot path.

The height of the nest varies from six to thirty feet, usually about fifteen.

The nest is composed of weed stems externally, and is lined with fine, yellow cured grass stems; the lining forming a strong contrast in color to the bulk of the nest. The nest is rather flat and shallow, but firm and compact, and the form of the sitting bird shows very prominently when on the nest. The eggs are three or four in this locality, the date for fresh sets being June 1st and later, and, as is

usually the case, when one nest is taken the bird builds a fresh nest and lays another set.

C. S. Brimley.

Raleigh, N. C.

New Ornithological Association.

The late meeting of the A. A. A. S. was the occasion of the coming together of quite a number of ornithologists, especially from the middle and western states. This was in part due to the efforts of Mr. A. W. Butler, of Brookville, Ind., and Prof. B. W. Evermann of Terre Haute, Ind., who had, by circular and personal correspondence, reached nearly every working ornithologist in the country.

Early in the session a meeting was called for the purpose of considering the advisability of a formal association of those present, and others who might desire to identify themselves with the movement, for the purpose of more efficiently extending this line of scientific work.

On motion of Mr. Butler, Prof. Evermann was called to the chair. Mr. W. S. Blatchley was elected secretary of the meeting, and after the statements of the object of the call, and some informal suggestions by those present, the chair appointed a committee composed of Messrs. Butler of Indiana, Widmann of Missouri, and Jones of Iowa, to prepare preliminary articles of association, and to present them for consideration at a subsequent meeting.

According to previous arrangements, certain papers were then presented and read, among which may be mentioned one by Mr. Lind Jones of Iowa, upon the Meadow Lark (*Sturnella magna*); one by Mr. Otto Widmann of Old Orchard, Mo., upon the Orchard Oriole (*Icterus spurius*); papers by Messrs. Butler and Evermann on the Baltimore Oriole (*Icterus Baltimore*). Prof. J. B. Steere of Michigan gave an extended account of the birds of the Philippine Islands, based upon his own observations in the islands. A number of fine specimens were exhibited in illustration of theories of coloration, distribution, etc. Mr. Butler presented extensive notes upon the migrations and distribution of the Evening Grosbeak. Prof. Osborn of Ames, Iowa, spoke upon the "Parasites of Birds." From his observations he inferred that only a limited number of these actually fed upon the blood of the host; most of them feeding upon feathers, hairs, etc.

The following officers were elected for the following year: President, Amos W. Butler, Brookville, Ind.; secretary, Prof. Charles W. Hargitt, Oxford, Ohio; treasurer, Otto Widmann, Old Orchard, Mo.

Another meeting will be held in connection with that of the A. A. A. S. at Washington, D. C., next year. The secretary will be glad to have any suggestions or answer any inquiries from those interested in the work of the association.

Preliminary articles of association were presented by the committee. These will be extended and modified as occasion may require.

The present idea seems to be that the association should be accessory to the American association; a sort of "sectional club."

Chas. W. Hargitt, Sec.

Miami University, Oxford, Ohio, Oct. 25, 1890.

Nesting of the Prairie Warbler at Raleigh, N. C.

The Prairie Warbler (*Dendroica discolor*) is fairly common at Raleigh, but the nest is by no means easy to find as the birds seem to wander, while building, quite a long way from the nest, and even when the nest is found it is often deserted afterwards, so sets don't get taken as often as it looks as if they ought.

In this locality the Prairie Warbler delights in sunny hillsides covered with bushes and saplings, building its nest in one of these at a height of from one to twelve feet from the ground, but usually about three or four feet high. They start building about the first of May and will have fresh sets from the middle to the end of May, some pairs being later than others, apparently. The nest is a beautiful structure, usually being largely composed of rabbit tobacco, a kind of gray-leaved, wild everlasting very much used by birds in nest building, and is lined with soft materials.

Unlike some localities where this bird nests mainly in pine saplings, here sweet gums are the preference, with elm about next best, nests being only found very occasionally in pines, although pine saplings about the right size are usually more abundant in the localities frequented by this bird than any other tree.

The set is usually four, sometimes three, and if one set is taken another nest will be built and another set laid, but the second nest is usually harder to find than the first, and that is hard enough.

C. S. Brimley.

Raleigh, N. C.

The Capacity of Eggs.

In a former article I suggested .268 as a constant by which the cube of the length of an egg may be multiplied in order to determine its capacity in cubic inches. A further study of the subject seems to show this to be really of more practical value than a formula which gives due weight to the width of the egg as well as its length. I must own that this result was directly the reverse of my own opinion before testing the matter in a practical way. Though observations, when all known instrumental errors have been expunged, are of more value than computation, the human mind is apt to be strongly biased in favor of the latter. If others see any points that I have missed I hope to hear from them through the pages of the O. & O.

In preparing the accompanying table the following formulæ have been used:

a = the length of the egg.

b = the breadth of the egg.

- 1) $a^3 \times .268$ = capacity of an "ideal egg" as determined in the article above referred to.
- 2) $\left(\frac{b}{x}\right)^2 \times \frac{a}{2} \times 4.19$ = capacity of a prolate spheroid.

This is the formula which I expected would give results more closely in accordance with observations (*i.e.*, determinations of capacity by weighing) than I could possibly do. Finding it less accurate when the mean percentage of variation was computed as a test I had recourse to

$$3) b^3 \times .2618 + \left(\frac{b}{2}\right)^2 \times \left(a - \frac{b}{2}\right) \times 2.094.$$

This formula is based on the assumption that the large end of an egg is half of a sphere and the small end half of a prolate spheroid. In the following table, for the basis of calculation I have used the measurement of eggs given in *Ridgway's Manual of North American Birds*. They are undoubtedly more accurate than any which I could make with the instruments which I have at hand, and I consider them as a perfectly good scientific standard. The next column shows the capacity in cubic inches of some of the eggs which I computed from their weight when filled with shot. I would like to have had these results checked by an independent observer, but to ensure all possible accuracy I have omitted all which were not based upon the weight of five (5) or

more specimens. The third column is computed from formula 1), and the next two from formulæ 2) and 3), respectively.

	Measurement from Ridgway's Manual.	Capacity in cubic inches.			
		By weight.	1)	2)	3)
Quail,	1.19 x .94	.58	.45	.55	.55
Clapper Rail,	1.72 x 1.20	1.21	1.36	1.30	1.29
Oyster Catcher,	2.21 x 1.58	2.58	2.89	2.87	2.89
Cardinal,	.99 x .73	.31	.26	.28	.28
Mockingbird,	.97 x .73	.24	.24	.27	.27
Boat-tailed Grackle,	1.26 x .89	.47	.54	.52	.56
Wilson's Plover,	1.38 x 1.02	.77	.70	.75	.75
Nonpareil,	.77 x .57	.11	.12	.13	.13
Long-billed Marsh Wren,	.66 x .46	.07	.07	.07	.07
Willet,	2.13 x 1.53	2.28	2.59	2.61	2.61
Florida Gallinule,	1.74 x 1.19	1.25	1.41	1.29	1.29
Snowy Heron,	1.68 x 1.34	1.25	1.27	1.58	1.57
Louisiana Heron,	1.78 x 1.29	1.25	1.51	1.55	1.55

The percentage of mean variation to bulk for the three last columns is .08 1-4, .11 1-3, and .11 5-6, respectively. The sum of the column "by weight" is taken as a basis of comparison, and the sum of the variation from each of the other columns reduced to hundredths.

Walter Hoxie.

Influence of the Open Winter of 1889-1890 on the Nesting and Arrival of Some Birds at Raleigh, N. C.

Owing to the universally mild winter of 1889-90, many birds began nesting earlier at Raleigh, the following list showing better than any other way how much several species were influenced by the weather.

Barred Owl. First set taken April 9, 1888, (addled); March 18, 1889, (large embryos); March 14, 1890, (slightly incubated).

Pine Warbler. First set taken April 9, 1888; April 12, 1889; March 24, 1890, (small embryos).

Brown-headed Nuthatch. First set taken April 7, 1888; April 6, 1889; March 24, 1890.

Carolina Chickadee. First set taken April 21, 1888; April 19, 1889; April 3, 1890.

Ruby-throated Hummer. First set taken May 11, 1888; May 13, 1889; May 7, 1890.

Yellow-throated Warbler. First set taken May 11, 1888; May 4, 1889; April 22, 1890.

Those species that nested early were much more influenced by the early spring than the later nesters, and the resident species more than the summer visitors, in fact the latter were very little if any earlier than usual. The earlier migrants were also induced to come a little earlier, but hardly so much as might be

expected, as will be seen from the instances given below.

DATES OF FIRST OBSERVING CERTAIN BIRDS IN 1888, 1889, AND 1890.

Black and White Warbler, March 28, 1888; March 28, 1889; March 24, 1890.

Yellow-throated Warbler, March 23, 1888; March 28, 1889; March 13, 1890.

Black-throated Green Warbler, March 28, 1888; March 28, 1889; March 27, 1890.

Blue-headed Vireo, March 24, 1888; March 21, 1889; March 18, 1890.

White-eyed Vireo, March 30, 1888; April 4, 1889; March 3, 1890.

Parula Warbler, April 4, 1888; April 1, 1889; April 3, 1890.

American Redstart, April 2, 1888; April 11, 1889; April 8, 1890.

Blue-gray Gnatcatcher, March 24, 1888; March 28, 1889; March 21, 1890.

C. S. Brimley.

Raleigh, N. C.

Red Phalarope in Rhode Island.

A Red Phalarope in full plumage was taken at Seaconnet, August 26, 1889, and one at Newport, September 27, 1890.

Southwick and Critchley.

Providence, R. I.

Wood Ibis in Indiana.

The occurrence of the Wood Ibis in Indiana having been long doubted by many, I am glad to record one specimen taken in this state in 1872, which is, I believe, the first record noted.

The specimen (which is a partially mummified head only) was in the collection of the late Dr. G. M. Levette, ex-state geologist, and was in a box of odds and ends thought to be worthless. As the late doctor was a very careful and painstaking scientist I have no doubt about the record being authentic, although the faded label only reads Ind., 1872. In the same collection I also found the heads of two (2) Scarlet Ibis, labeled Ind., 1870. This is also the first record, I believe, for this bird in this state, and although their occurrence is noted at a rather late date, it is better late than never. The specimens are now in my collection.

Fletcher M. Noe.

Indianapolis, Ind.

Notes by the Way.

Several of our subscribers have recently written to know if we would exchange back volumes of the O. & O. for specimens. We have them on hand and will exchange them for any first-class specimens of natural history that we can use. Do not hesitate to send in a list of what you have. The back volumes form a valuable addition to the library of our American naturalist. The amount of information they contain is invaluable.

A unique addition to our collection of photographs is one that the postman just hands us from Texas. The inscription is, "Bunch of oranges raised in Jefferson Co., Texas. Compliments of Jas. H. Rachford." Mr. Rachford writes: There are nineteen oranges in this bunch (here our mouth waters); the smallest measures eleven inches around (we mentally calculate the chances of getting outside of them at one sitting). He adds: This country is especially adapted to the raising of fruit and that Beaumont is one of the finest cities in the state (as we read, soft strains of "What must it be to be there" float into our windows from a passing band of Salvationists, and we shout amen!). Mr. Rachford is interested in the growth and improvement of the section, and is ready to give any information to parties who desire it.

Henry D. Minot is Dead.

In the fatal collision which took place on the Pennsylvania railroad, near Florence, about 7 A. M., on the morning of November 14th, Henry D. Minot was instantly killed. For some years Mr. Minot has spent a large portion of his time on the rail, in the financial interests of railroading.

Mr. Minot was best known to the readers of the O. & O. as a naturalist, but particularly as the author of "The Land and Game Birds of New England," a work that has stood the test of time, and of which a new edition is now being called for. Mr. Minot also published a little work called "The Diary of a Bird," which is very interesting and full of humanity, for which the author was noted. He also wrote many articles which were published in papers not ornithological, but he was of such a modest, unobtrusive nature that even I did not learn of all his doings in natural science. He did inform me some time ago that when he wrote and published "The Land and Game Birds" he was but a boy—I believe under sixteen when it was sent out to the world.

It is perhaps eleven years since he was drawn to the writer; I know not why, unless it was the humane tone which was manifested in the O. & O., and with which he was in deep sympathy. He was an ardent admirer of the great Alexander Wilson, and his desire was to possess all of the Wilson material that he could, and when he again found leisure he intended to devote one or more rooms to the work as a literary and art museum, with the intention of writing a life of Wilson that would finally do him justice. The last time I saw him was during a hurried visit to his native city, when on November 2d he left his friends long enough to visit the home of the writer in Dorchester, when some two hours were spent in rapidly examining old MSS., drawings, etc., which had been the property of Wilson, Audubon, Bachman, Nuttall and others. This was a great treat to him and he was to have been the possessor of the collection as soon as the transfer could have been properly made.

Mr. Minot was about thirty-one years old, with a healthy complexion and rosy cheeks. I little thought, as I bade him good-by from the high piazza and directed him to the electric car station, that Boston was to be so cruelly robbed of one of its brightest ornaments in so short a space of time.

Jos. M. Wade.

Dorchester, Nov. 17, 1890.

Natural History Business.

Perhaps one of the most alluring branches of industry is the one known under the above title. Dating back to the time Adam secured his first specimen "Eve" to the present day it has been carried on more or less by mankind in every clime. The vastness of the field, with its various branches, offer every facility to meet the taste of all. The man who ignores anthro-

offers a continual pleasure, while to him who follows it as a business the extent and variety are the rocks that court financial shipwreck.

The vast numbers scattered over the country who are engaged in making private collections, and who by the routine of life are confined to a locality, must look to others for assistance, and procure specimens from other localities either by purchase or exchange.

This is often done by direct communication



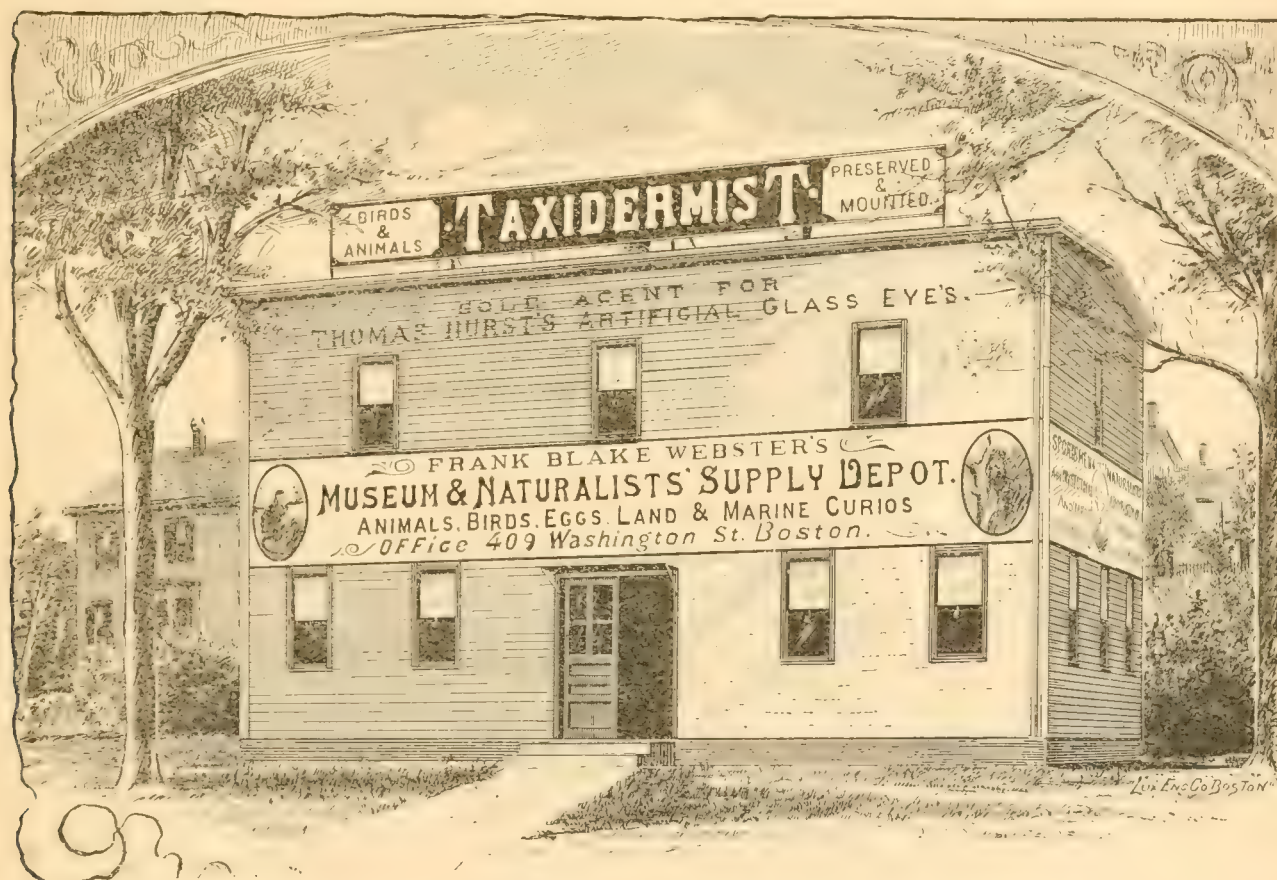
FRANK BLAKE WEBSTER.

pology bows in reverence to conchology. He who would travel miles to worship at the shrine of herpetology scorns ornithology, while the magnate who looks in utter amazement at the toil of the entomologist, strips off his raiment and with the energy of youth collects the "biting" flea. Some pursue the calling as a study, some as a pastime, while others turn to it under the exacting law, "By the sweat of thy brow." To the man who by the smile of fortune can combine study and pleasure, it

between collectors, but as a rule will be found to require a great deal of time and patience and liability to be tinted with disappointment. It was to meet a demand for centralization of exchange that stimulated the writer to establish a Naturalists' Supply Depot. In the year 1867, with a view to the enterprise, the department of taxidermy was taken up as a study. Night after night in the "wee, small hours," familiarity with the scalpel and stuffers was courted, and oölogy flirted with. After seven

years' apprenticeship, in 1874, special attention was given to the working materials required, plans promulgated, and the following year the Naturalists' Supply Depot was established, and the first catalogue issued under the name of A. L. Ellis & Co., Pawtucket, R. I., the writer's business interest at the time not warranting the use of his name. The business was pushed with energy, evenings alone being devoted to it. In 1883, Wm. J. Knowlton, successor to Brewster & Knowlton, an old, well-known Boston firm, wishing to devote his attention to precious stones, offered the sale of his stock and trade in all departments except the one

became evident that more room was required, and after much deliberation Hyde Park, seven miles out of Boston, was selected. A site was secured at the Hazelwood station (Hyde Park) on the Boston & Providence Division, Old Colony Railroad, a twenty minutes' ride from Boston, trains running at all hours. During the summer the first of a series of buildings that will follow, if the demand requires it, was erected. The museum building, an engraving of which is given, faces the railroad, and from the thousands of curious faces that peer from the continually passing trains, evidently is a prominent feature in the locality. The upper



OUR NEW HEADQUARTERS

As seen from the Old Colony R.R., Providence Division, at the Hazelwood station, Hyde Park, Mass. Hyde Park joins the City of Boston and is 7 miles from the Boston stations of the above-named railroad and the New York and New England Railroad. One hundred and thirty-two trains per day afford access between the two points.

above named. The trade was consummated and the business turned to Pawtucket, a rapid development followed and the following year it was deemed expedient for the writer to devote his entire time to it. At this time Aldrich & Capen, Boston taxidermists, offered the sale of their business, stock, trade and good will, which was accepted and the business continued in both cities under the name of Ellis & Webster. For over a year this continued, involving the daily travel of about 100 miles. At the close the Pawtucket business was turned once more to Boston, the writer buying out the interest of A. L. Ellis (since deceased). It soon

part is one entire room, in which is stored specimens from all parts of the land, mammals, birds, heads, land and marine curio, mats, robes, horns, antlers, eggs, nests and everything that comes under the head of natural history specimens. These are selected with the greatest care from the offers that come in from collectors, and they embrace such as are required by the scientific and amateur, for the museum and school, the office and the drawing room — continually changing, arriving and being shipped. At present it is open only to patrons, but arrangements are being made to open it another year to the public. The

lower portion is now used as workrooms, office and supply room. Every facility for carrying on exchanges and sales is being developed. To bring the enterprise to its present state has required constant and unceasing labor. At times some departments have been neglected to throw life into others; but such is only temporary.

Not the least as a crowning effort has been the publication of "The Ornithologist and Oölogist," a magazine to-day second to none of its nature, made so by the united efforts of those whose names appear on its pages, a common ground on which we all meet.

Believing that friendship and familiarity are important features conducive to the success of the business I am induced to offer to my patrons the above sketch that they may understand what has been my aim. With thanks for the kind support in the past, I hand you my new lists.*

Frank B. Webster.

Hyde Park, Mass.

Day at Rockaway Beach.

Notwithstanding the rapid encroachments which civilization is making upon primitive nature in this vicinity, there still remains a large portion of Rockaway Beach as yet unchanged, except for the life-saving station, one or two club houses, and innumerable numbers of exploded cartridges, which last attest to the favor in which the beach is held as a hunting ground. I had often heard from a fellow ornithologist wonderful stories of the abundance of birds there in the migrations, even to the number of eleven Hawks shot in one day. So, on the fifth of October, 1889, we (my friend Joe and myself) started for the beach with our heads full of the reminiscences of this hunter's paradise, where we expected to realize to some extent the pleasures of the chase (even "Chippies" are "game" to an ornithologist, you know).

It was an ideal autumn day, crisp and cool, with not a cloud in the sky, and as we rode over the trestle which spans Jamaica bay, the sun sparkled on the waters with dazzling brilliancy, the scene being enlivened now and then by the flight of a snowy Gull or a flock of sombre Crows.

On reaching the beach, we had hardly gotten away from the yard surrounding the depot, when our ears were delighted by the lisping notes of a company of Golden-crowned Kinglets, who were feeding in a small cedar,

and the sharply defined, nasal notes of the Red-bellied Nuthatch "*quank-quank-quank*." I had just raised my gun to fire when a gruff voice said, "Don't shoot here." We were not seriously frightened, but were obliged to postpone the securing of any Kinglets or Nuthatches till we had crossed the fence which marks the line of private property. We found the Kinglets (*Regulus satrapa*) very abundant all day, and extremely confiding, so that we had abundant opportunity to watch their active and dexterous manœuvres in search of food, and to secure all we had the heart to shoot.

The Nuthatches (*Sitta canadensis*) were not so common, but every once in a while we would hear one, or catch a glimpse of his slaty-blue body as he flew from one cedar to another. I think I saw one or two of the White-bellied species (*Sitta carolinensis*), but this is a rather rare bird in this vicinity.

Fully as abundant as the Kinglets were the Yellow-rumped Warblers. We couldn't move without scaring up one or two, and sometimes a bush or clump of bushes seemed full of them. We shot only a few because we wanted our ammunition for nobler game, and also for the reason that many parts of the beach are covered with a thick growth of bushes, in which, if the birds fall, it is very hard to find them, so when we saw our stock of ammunition decreasing at rapid rate, we didn't shoot at the Yellow-rumps unless we were sure of getting them.

At least one species of Thrush was common, but as they were quite shy and stuck closely to the bushes or thick cedar near the ground, we secured only two specimens, but these alone repaid us for our trip, for they proved to be the rare Bicknell's Thrush.

Another rare bird which led us on a tantalizing chase was a Blue-headed Vireo, or at least we thought it was such. When I first saw him he was in a bush not ten feet from me, but as I had only No. 3 in my gun I thought best not to fire at him, and by the time I had slipped in a "dust" shell the Vireo had "slipped" around to the other side of the bush, and although I followed him nearly half a mile with all the stealth I could command, he at last got away from me. Well, if I hadn't been having pretty good luck that day I should have requested Joe to kick me, as it was I didn't get over the loss of that bird till I identified my Thrushes.

We were now in a mood for a rest and some lunch, so, in order to keep warm and see all

* New catalogue ready Dec. 1, 1890.

that was going on, we chose the top of a sand dune for a dining table. Soon we noticed flocks of White-bellied Swallows coming over, and as one flock passed rather low I managed to secure a specimen from it. During all of the afternoon flocks of from twenty-five to several hundred came along pretty regularly, at intervals of about fifteen minutes, all flying westward, so that altogether many thousands of these birds must have passed over in migration on that date. Occasionally one or two stragglers would fly low, just over the tops of the dunes; one such came within five feet of the muzzle of Joe's gun barrel. I exclaimed "O-o-o-o," and Joe, thinking I meant for him to fire, blew the poor bird into a shapeless mass.

Our stock of ammunition was now nearly exhausted, especially the smaller sizes of shot, so we started towards the depot. We had gone but a little way, and were crossing a strip of meadow, when we saw a small Hawk skimming along through the cedars ahead of us. We dropped on our knees, and after a few turns the Hawk came directly towards us. When within thirty yards Joe gave him a charge which made him drop his foot and look sick. I followed with a dose of No. 3, which caused him to spin around several times and fall in a heap, showing that a shot had entered the head. On picking him up I saw that he was a new bird to my collection, namely, *Falco columbarius*, and a fine specimen he was, too.

We had been scaring up Flickers (*Colaptes auratus*) all day, but it was not till nearly night that we secured two, both shot by Joe. One was a good fifty-yard-wing shot, and the other was remarkable, from the fact that after picking him up we discovered from her cries of distress that a Phoebe had been wounded by the same shot. Phœbes were common all day, as were Catbirds and Goldfinches. The Catbirds had a very glum and sullen aspect, it seemed to me, keeping well out of sight in the bushes; while on the other hand the Goldfinches, as usual, were the personification of life and vivacity—and yet the Catbirds were on their way to the sunny south, while the Goldfinches were going to brave the rigors of a northern winter—a lesson for those people who are always clamoring for a change.

We saw several Brown Thrushes, and secured a pair of Cedarbirds in young plumage. The Snowbirds (*Junco hyemalis*) had already arrived in small numbers.

As we stood on the last of the dunes before starting for the depot, we saw a large flock of White-bellied Swallows pause in their migratory flight and circle gracefully over a large strip of meadow, and as the sun, then well toward the horizon, threw his rays between the hills full upon the Swallows it lighted up the scene most beautifully, the ease and grace with which the birds performed their evolutions adding to the impressive beauty of a scene which formed a fitting ending to a trip I shall not soon forget. *Arthur H. Howell.*

Brooklyn, N. Y.

Wanderings, No. 9.

MOUNT KEARSARGE.

The 24th of June, 1890, found me in the little, but famous, town of North Conway, N. H., the guest of my old-time and long-tried friend, J. Waldo Nash, whose name is known to our readers by his notes, which appear in our columns from time to time.

The home of Brother Nash is located on the outskirts of the village, and his little farm is washed, oftentimes too roughly, by the waters of Kearsarge Brook, which takes its rise on the side of the mountain whose name it bears, and whose bare and rocky crest rises above the minor peaks around, like a sovereign raised above his subjects.

On the farther side the brook, the slope of Lookout Point, one of the Green Hills range, begins to rise, and with but little interval climbs toward the clouds, affording, from the various ledges which crop out from its sides, a beautiful view of the village, the Saco River which winds through it, the Cathedral rocks, and White Horse ledge. Beyond is Mount Attitash, with its noted cascades, known as Diana's Baths, which show notable examples of the Potholes, with which the ledges of the river bottoms of this section abound; Moat Mountains, and beyond, Chocorua, despite its distance, lifts its height of 3,500 feet.

It is no wonder that, with these surroundings, we find Brother Nash an artist and taxidermist of no small ability, and a thorough naturalist and woodsman; and numerous specimens of his handiwork adorn the walls of his cozy dwelling. From this point did we diverge for numerous tramps about the country.

Upon this day we took the course of the brook, lined with trees and bushes, and soon found birds in abundance. Here, in a swamp, near the railroad station, we found the nest of

the Redstart, now filled with young, and numerous examples of insect life made life pleasurable and miserable.

Our next point was Artist's Falls, where Artist's Brook tumbles over a succession of ledges down the mountain side; and all shaded by the overhanging foliage which covers the slope.

Farther on, between Cranmore and Peaked Mountains, we catch a glimpse, between the trees, of dark clouds rapidly gathering in the west, and we turn our footsteps homeward, down the precipitous slopes, pausing now and then to watch the clouds casting their shadow over the range on the opposite side of the valley, and then rushing down the sides over the rocks and bushes, and through the trees.

What a change the pure, bracing mountain air produces! Only a few days before, I threw down my pen, sat back in my chair, and wondered if my back and fingers would ever come straight again, and if my brains would ever get unclogged, and the exertion of walking a mile was so great that I took a horse-car to go five blocks; and here I was, four days later, rushing down the rough side of a steep mountain, risking the safety of life or limb at every leap, as if I were only a boy of fourteen years.

In one of these plunges, as I was leaping over a patch of low blueberry bushes, to keep my feet from getting tangled, and thus falling headlong down the hill, a little bird flushed from between my feet as I struck, and was gone in an instant, but not so quickly that I did not recognize the little Junco, or Snowbird, whose home I had never before discovered. I thought no more of rain or shelter, but as soon as I could check my downward course, I retraced my steps, shouting for my companion, and he found me bending over the nest, which was sunk in the ground among blueberry bushes and brakes. It was composed of fine grass and pine needles, lined with hair, and contained five eggs. Entry in my note book says: Diameter, inside, $3\frac{1}{2}$ inches; diameter, outside, 5 inches; depth, 2 inches; very neat and compact.

On again down the mountain, and at the foot we pause again to look at the nest of a Black and White Warbler, which my friend had found some days before, and left for my delectation. It was on the side of a little bank, the foot of which was washed by the waters of the brook, and crowned by a fence whose gray and moss-grown boards contrasted well with the green bank overgrown by ferns

and bushes and shadowed by the dark, overhanging branches of a hemlock.

The nest was nearly at the foot of a tree, about four feet above the water, and hidden by a branch of hemlock which grew out over it. It was loosely constructed of pine needles and dead leaves, and lined with fine shreds of birch bark and horse hair; contained four eggs.

The first thing that greeted my eyes on awakening the next morning, was the fogs of the night slowly rising from off the summits of Moat Mountains; and I remembered that we were to try Old Kearsarge that day; and I was soon watching its cap emerging from the clouds which the showers of the previous night had caused.

The sky clearing, we started at 10 A.M. across the fields for Sunset Hill, which is one of the foot-hills of the mountain. The way led along the course of the brook, through the intervales, and strawberries and beautiful flowers and scenes beguiled our footsteps so that it was nearly noon before the ascent was really begun.

The bridle path wound around trees and rocks, with numerous openings, whence the valley below could be seen, and many were the interruptions which turned us from our path. The beautiful flowers of the *Linna borealis* called our attention at one moment, and at the next turn it was some bird which hopped out of the bushes, and as suddenly flitted out of sight.

About one-fourth of the way up we heard the sound of falling water, and our investigations were rewarded by a beautiful series of cascades, swollen by the showers of the night before, formed by the fall of the brook which runs between Kearsarge and Bartlett Mountains. It seems strange that these cascades are not better known, for they greatly surpass many which are more noted. It is true that they are not easily accessible, but they are well worth the trouble of seeking out.

On these banks, as we climbed over and leaped across on the mossy and water-worn rocks, we started the Redstart, the Chestnut-sided Warbler, the Red-eyed Vireo and the Olive-backed Thrush, hiding among the bushes and the fern-grown banks.

We followed the course of the brook until we found that it would carry us away from our goal, when we turned again toward the bridle path.

We lunched on Prospect Ledge, well named, for here is afforded a fine prospect of this section of the Saco Valley.

Leaving here, we find bird life growing very scant, but see the Junco and White-throated Sparrow apparently breeding at a height of 2,000 feet.

Speaking of this latter bird, it is here in these mountains that I heard its voice at its greatest perfection, at least two more notes being added to its song as heard in the lowlands. It warbles at intervals during the entire day, calling back and forth with its companions; and later on, as I lay in my blankets on the slopes of Mount Willey, in the darkness of the night, and surrounded by the sombre depths of the spruce forest, lit only by the glimmering stars, I heard it again, like a voice of hope calling from the depths of gloomy despair, and enlivening the solitude with its cheery notes. And as the first rays of the rising sun adorned the east he, first of all, lifted up his voice in gladness and praise.

Not for all the world could I, since that glorious day, harm one of those little creatures, or take its nest. I would feel as if I had killed or robbed my own brother.

But I have digressed, both from my path and my story. We are now nearly to timber line, and soon have passed out where the only vegetation is low bushes, a few stunted evergreens, twisted and gnarled by the force of the winds which sweep over the summit, and the low, creeping mountain cranberry (*uva ursi*), which covers the soil wherever any is found to cover the rocks. A few more hundred feet and we step upon the top. It has been a hard climb, but the view is worthy of the labor.

We can follow the course of the Saco River from where it emerges from the Notch until it disappears in the distant fields of Maine. Below us are the villages spread out in minute panorama, the buildings looking like toy-houses, and the people indistinguishable except by the aid of the glasses.

To the south, on either side the valley, the two ranges show their length; to the east, the hills of Maine are nearly flattened into the plain, though near by they are considerable eminences, and the view is unbroken to the horizon, with river, lake and field varying the picture; while to the north are the monarchs of the range, too numerous to mention, culminated by Washington, now for weeks cloud-capped, and on whose sides the patches of snow and ice are plainly discernible.

As we stand on the northern span we see a shower gathering about Mount Washington, and sweeping down the Notch. Washington is hidden from view, and then follows Munroe;

Willey and Webster disappear, and the bank of fog, swirling and swaying with the force of the wind, draws nearer and nearer.

In the midst of it all, in the gap between Bartlett and Kearsarge, high in the air, and in the very path of the wind, soars a large hawk. He sways back and forward, ever and anon coming to a standstill, facing and in the very teeth of the gale, and hovering there without the slightest discernible motion, braving and conquering the very power of the wind, a grand triumph of skill and power. It was a majestic sight.

The wind is so strong that we are glad to get under the lee of a little house which crowns the summit, and which is firmly bound to the rock with iron rods.

After plucking a few flowers of the bearberry as mementoes for absent friends, we strike down the side of the mountain, avoiding the paths, and soon are crashing our way through the foliage, below timber line.

We follow directly down the southeast side of the mountain, and as we near the foot we strike a ledge showing fine specimens of tabular and drusy quartz, which we stop and sample.

But the night is drawing near, and we hurry away, starting two partridges with their broods of young. Signs of bear are not infrequent, but we see none, though one was shot here on the night of the 23d.

We reach the house at 7 o'clock, having taken six hours for the ascent and four hours for the return.

F. A. Bates.

Two Days in the Field.

Last Summer was spent on Mackinac Island. There the migrations commenced in the middle of August. and from then until the 10th of September I made it an almost daily practice of rising at daybreak, the better to observe the migrants.

On the morning of Aug. 30th, I awoke at the first streak of dawn, and hastily donning my clothes stole softly outdoors. Here I found my gun and fishing creel, and taking a bite of food, was soon on the road; first through a circular cleared space, where a few ghostly figures flitted silently from under my feet, Vesper Sparrows disturbed mayhap from their last night's resting places. Where the road turns through the evergreens I heard a few

faint peepings and twitterings, so I started to investigate. It proved to be a Winter Wren, and he was repeating his summer song in an undertone, inaudible at a short distance, and dwelling particularly on the trills. Leaving him to his meditations I soon found myself entering a long strip of open maple woods, musical with the morning efforts of the Red-eyed Vireos. Paying but slight attention to these and to the numerous Chickadees and Kinglets, I hastened on, and by rapid walking arrived at my collecting ground just as the sun rose. This place includes about two hundred acres of dense undergrowth pierced by roads shadowed by overhanging bushes, along which it was only necessary to walk slowly, keeping my eyes and, more especially, my ears open.

A few judicious "sucks" on the back of my hand called out a pair of Wilson's Black-capped Warblers and a vast number of female Redstarts. After looking at me gravely for a moment or so the former retreated silently into the evergreens. Every few steps would discover new attractions; here a gaudy Blackburnian Warbler looked down upon me from the lower branches of a pine; there a Canadian Warbler peered at me through a screen of leaves; on this side a Prairie Warbler; on that a Creeper, while any number of Redstarts, Magnolia, and Black-throated Green Warblers appeared at every turn. Nor are the Warblers all; Hermit Thrushes, Kinglets, Nuthatches, Chickadees, Goldfinches, Purple Finches,—it would be tedious to mention the half of them.

A turn to the right, and a few hundred yards beyond, is a small cleared spot of half an acre, an abandoned farm perhaps. On the edge of this I found a long column moving rapidly; all I had to do was to stand still and let them pass in review before me. To the right I saw a female Cape May Warbler feeding in a small sapling, but on my turning to shoot, away she went, unmindful alike of my frantic calls and of my muttered laments. Turning wrathfully to leave I was electrified to see another, a male, in the sapling just vacated by his mate. This time there was no mistake, and a "light load" soon laid him low.

Across the road I turned, and had taken but a few steps in the long grass when a small greenish bird flew up and disappeared in the bushes. In answer to my calls she appeared in a rift in the foliage; though but for an instant, an opportunity for a hurried shot was presented. I crawled in on hands and knees,

and after a long search found the bird caught in a crotch near the foot of a small bush. At first sight I took it to be a Mourning Warbler, one of which I had already seen, but a glance at the white eye ring undeceived me; it was a female Connecticut Warbler. Strange coincidence, the only other specimen of this species I had shot was collected on the same date one year previous. On the way home a lonely Robin was observed, left behind by his migrating fellows, and an immature Pine Creeper was shot. Examination of my field notes showed that forty-eight species had been observed.

September 6th I was again in the field, and in the first few steps from the house was astonished at the vast number of Warblers moving. All the night before I had heard them flying over, and the morning found many still passing. Never have I seen the Warblers as abundant as they were that morning; instead of a few scattered bands, all the south side of the island was one vast flock, and a few calls sufficed to bring down clouds of birds. In the bushes along the roads the Parula Warblers had become common, the Bay-breasted and Blackpolls were everywhere, and the Black-throated Greens, Magnolias, and Nashvilles were not much behind. The Pine Creepers, Prairies, Wilson, and Chestnut-sided were much commoner than usual, and the Downy Woodpeckers were in every tree. Soon I turned along the bluff, where they were still in unbroken array, where I saw four White-bellied Nuthatches and a Hairy Woodpecker, both, strange to say, rare birds to the island.

Among other rarities were a pair of Philadelphia Vireos and a Cape May Warbler. After breakfast I rested an hour or so while I skinned some birds and then started out again. To my surprise the host had nearly disappeared and the birds were if anything a little less common than usual. That day was the height of the season; 51 species were recorded.

Stewart E. White.

Grand Rapids, Kent Co., Mich.

WHY THIS SPACE IS LEFT?

SEE NEXT ISSUE OF O. & O.

THE
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J. PARKER NORRIS,

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FRANK A. BATES,

Boston, Mass.

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Editorial.



"EASTERN" DEMOCRATIC ROOSTER.

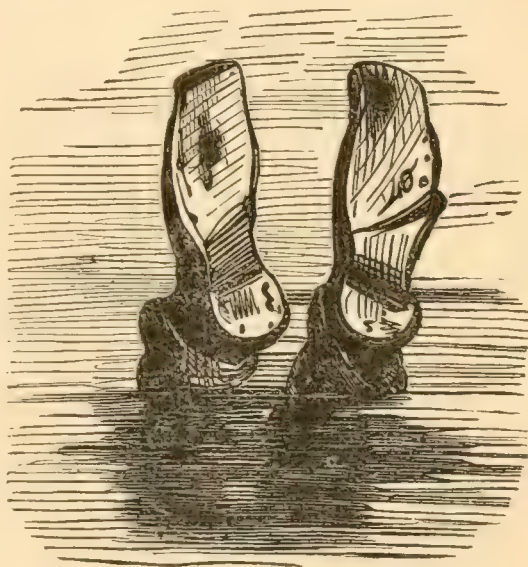
We note the appearance of this bird in unusual numbers in the east, during the last few days. It is not a new species, but the recent flight bids fair to place it in future under the head of "abundant." A year since, when the Killdeer visited us, the question was, "The cause?" There can be little reason for any one to question the cause of the present case. The way in which the best interests of New England and other sections has been ignored by scheming politicians in the Republican party has forced many of their strong friends to cut clear of it; and it will only be by a short tack from their present course that they will save themselves from being swamped. The rushing through of the McKinley bill has met with a sharp rebuke. It is not necessary for us to point out every item of interest in which it affects our naturalists; they will have a full chance to discover that in the future, as

they scrape the bottom of their pockets for the extra dollars that it will call forth. The duty on glass eyes has been increased to sixty per cent. The reader can appreciate this when he stops to think that for every ten dollars' worth of eyes that he gets (European value) he has to pay the government a tax of six dollars, and for what? To force him to buy a poorer grade, manufactured by some Bohemian at Pawtucket, Rhode Island.

Thanks to the interest of one member of congress, the duty was removed from birds' skins for scientific use. But that was not going far enough. The duty should have been removed from skins imported for millinery purposes; not that we are in the slightest degree interested in that industry, but that the protection of our native birds would be increased by it; also, nearly all the bright plumaged birds used by our taxidermists are imported by the millinery houses.

In this state the naturalists have received very little from the Republican party for which to feel thankful. For the last five years we have called attention to the fact that there should be a permit law that would enable our naturalists to collect. There is such a law, but it has been a dead letter, by the management of the Game Commissioners, who hold their office under the wings of Republican monopoly. In our last issue we gave reasons why the naturalists and taxidermists should not overlook the way they had been ignored when they went to the polls, and we believe it was one of the straws that helped to break the camel's back.

It remains for the future to decide whether the naturalists will receive any consideration in this state. If not they will stand ready to lend their force to tip someone overboard.



We have scanned the pages of the many publications that have come to us during the past two years, in hopes of finding the slightest spirit of a disposition to look to the interests of naturalists, upon whom they depend for their support. At last we note with pleasure that one has taken up the subject. Charles F. Carr, in his publication, "The Wisconsin Naturalist," refers to the nonsensical duty on some goods used by naturalists. That is right, friend Carr; you will lose nothing by working for the interests of the naturalists. The publication that has no more independence than a poodle is worthy the early grave into which it usually tumbles. Let the motto be "Independent in all things, neutral in nothing."

With the ensuing volume the O. & O. will be published at Hyde Park, Mass. While we shall retain our Boston office, as a convenient point at which to meet our friends and transact local business, we shall make Hyde Park our headquarters. All communications, except those belonging to the department of Mr. Norris, should be mailed to above address.

Brief Notes.

L. W. Newell, a popular Boston taxidermist, who for a number of years was connected with C. I. Goodale, and of late doing business on Kingston street, has cast his lot with us. His special department will be to look after the taxidermists' interests. His genial nature has won many friends among the eastern sportsmen.

James T. Clark, Dedham, who has been with us during the past two years, we feel safe in rating as one of the finest taxidermists in the country, his specialty being heavy work. Clark's work has become quite famous in Boston's sporting circles. In the future he will take the position of chief taxidermist.

Frank A. Bates, who is well known to our readers, has been connected with us for the past three years. "The Bug Man" will take special charge of the order and supply department.

All three of these gentlemen will be interested in the general business.

N. A. Eddy of Bay city, Mich., one of our original subscribers, called on us last month. It is a pleasure to meet those whose names are familiar.

Hugh D. Auchincloss, of New York, is laying out quite a programme for his winter evening entertainment. He has recently added quite a number of skins to his collection, which he intends to mount.

C. I. Goodale, the well-known Boston taxidermist, has sold out his business. Under

his genial management during the past twenty years he had built up a large trade. This will undoubtedly be scattered.

Mr. Goodale will engage in the manufacture of cork wood ornaments, on which he holds a patent. We wish him success in his new line.

Snow Buntings in fine plumage were taken at Quincy, Mass., Oct. 24th.

Stuffed heads of the elk bring higher prices out west than they do east. The fact is, Boston is the place to trade.

F. A. Glezen, of Providence, R. I., returned in October from a successful hunting trip in Nova Scotia. The trophy that he secured will remind him of the pleasant hours.

Among the first to bring in a deer's head this season was R. F. Perkins of Boston. That gentleman knows where to find game and how to get it.

Wood Duck are about as scarce as Wild Pigeon. We actually have heard of as many of the latter being seen this season as the former.

The busy season for the taxidermists has now opened. May it be a hot one.

Sportsmen who wish to preserve a head or pelt will find the free use of salt about as sure as any way to keep them in good order. Use plenty of it.

It is very discouraging, the number of eggs that have reached us during the past season in damaged condition, owing to not being sufficiently wrapped in cotton, and in some cases by old collectors. A little extra care would save much annoyance.

The collector who uses ink in marking his eggs is behind the times. Use a soft lead pencil.

We are always glad to record any little note of interest in any department of natural history.

A number of the boys are saving their squirrel skins and tanning them with Currier's Liquor. They all say that it works nicely, and it looks as if squirrel skin coats will shortly be the rage.

Percival Gasset, formerly publisher of the *Exchange and Mart*, has just returned from a trip west. He spent considerable time on a ranche. The sight of a photo that he had taken in Cow Boy attire caused us to drop on all fours and crawl under the counter, but when he mentioned some heads that he had brought back for us to mount for him we were induced to come forth again.

Another white crow has been taken the past season, near Lexington, Mass.

We note that first premium for birds and animals was awarded to Mr. Myron Huff, of Lodi Centre, N. Y., at the Union Fair held at Trumansburg, N. Y.

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No. 12.

A Series of Eggs of the Prothonotary Warbler.

The eggs of the Prothonotary Warbler (*Protonotaria citrea*) are as a rule more brightly marked than those of any other warbler, and their glossy appearance adds much to their beauty. Their variation is very great, but it is believed that the series of seventy sets now before me exhibits all their varieties of size and color.

Set I. June 11, 1888. Burlington, Iowa. Nest in hole in elm tree in water. Six eggs. Two are pure white, unmarked, save for four or five indistinct specks of cinnamon. The other four have a ground color of ecru drab, sparingly speckled and spotted with cinnamon: .73 x .56; .69 x .55; .68 x .56; .70 x .55; .65 x .55; .68 x .55. All entirely without gloss.

Set II. June 6, 1888. Marion County, Mo. Nest in cavity of rotten willow stump, made mostly of moss. Five eggs, incubation begun. White, glossy and speckled all over the surface, but more heavily at the larger ends, with cinnamon-rufous, burnt umber, and lilac-gray: .79 x .60; .78 x .58; .75 x .59; .77 x .59; .74 x .61. Very large eggs for this species.

Set III. June 8, 1888. Lacon, Ill. Nest of moss, etc., in an old knot hole. Six eggs, fresh. Light creamy white, glossy, heavily speckled and spotted with chestnut and olive-gray. The markings are much heavier at the larger ends: .72 x .58; .67 x .57; .57 x .57; .66 x .58; .70 x .57; .71 x .60.

Set IV. June 1, 1888. Lacon, Ill. Nest of moss, hair, etc., in broken end of willow standing in the water. Five eggs, fresh. Glossy white, speckled and spotted all over the service with chestnut and olive-gray. The markings are much heavier at the larger ends: .72 x .60; .74 x .59; .71 x .58; .72 x .59; .71 x .58.

Set V. June 5, 1888. Burlington, Iowa. Nest in willow stump. Seven eggs, incubation begun. Glossy white, speckled all over the

surface with burnt umber and olive-gray: .69 x .55; .64 x .54; .69 x .55; .66 x .55; .68 x .55; .66 x .55; .68 x .54.

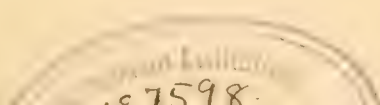
Set VI. June 3, 1888. Burlington, Iowa. Nest in hole in sycamore, standing in the water. Seven eggs, incubation begun. Glossy white, speckled all over with chestnut and lilac-gray. The markings are heavier near the larger ends: .69 x .55; .70 x .56; .63 x .52; .64 x .54; .69 x .56; .71 x .58; .64 x .53. This set also contains one egg of the Cowbird.

Set VII. May 27, 1886. Marion Co., Mo. Nest made entirely of a large quantity of damp, green moss, placed in a natural cavity on the under side of a willow limb leaning over the water, and about three feet from the surface. Five eggs, incubation commenced. Light creamy white, glossy. Spotted all over the surface with chestnut and olive-gray: .69 x .56; .68 x .56; .65 x .59; .71 x .56; .70 x .57.

Set VIII. June 11, 1888. Lacon, Ill. Nest of moss in natural cavity in a willow tree, six feet from the ground. Six eggs, fresh. Glossy white, speckled and spotted all over the surface with chestnut and olive-gray. The spots are larger near the greater ends: .74 x .57; .74 x .55; .76 x .55; .73 x .56; .76 x .55; .73 x .55.

Set IX. June 7, 1888. Lacon, Ill. Nest of grass and moss, in a woodpecker's hole not over three inches above the water. Six eggs, fresh. Ecru drab ground color, without gloss. Two of the eggs are unmarked except by a few spots of cinnamon near the larger ends. A third has a well-defined wreath of chestnut spots near the larger end, and a few specks of olive-gray over the rest of the surface. The other three are speckled and spotted with chestnut and olive-gray. The shells of two of the eggs are very rough: .69 x .57; .71 x .58; .73 x .57; .67 x .53; .67 x .53; .71 x .53.

Set X. June 3, 1888. Burlington, Iowa. Nest in dead stump. Six eggs. Light creamy white, glossy. Thickly speckled and spotted all over the surface with chestnut and olive-



gray. Near the larger ends the markings are so near together that they almost obscure the ground color: .68 x .57; .68 x .57; .67 x .57; .67 x .58; .67 x .58; .69 x .58. This set also contains a Cowbird's egg.

Set XI. June 5, 1888. Burlington, Iowa. Nest in willow stump in water. Seven eggs, fresh. Light creamy white, with less gloss than usual for this species. Speckled and spotted with cinnamon-rufous and olive-gray. The spots are larger and closer together near the greater ends: .64 x .58; .65 x .52; .64 x .56; .65 x .56; .63 x .55; .62 x .54; .67 x .56. A Cowbird's egg was found with this set.

Set XII. May 10, 1886. Colleton Co., S. C. Nest made of cypress leaves, in natural hollow of ash tree, seven feet above the water, in a cypress swamp. Four eggs, fresh. Glossy white, speckled and spotted with olive-gray and chestnut. Near the larger ends the spots are much heavier: .70 x .57; .70 x .58; .69 x .57; .70 x .57.

Set XIII. June 26, 1888. Burlington, Iowa. Nest in willow stump. Six eggs, fresh. Five of them are glossy white, spotted with chestnut and olive-gray. The sixth has a creamy ground color, with large spots of chestnut and olive-gray, nearly all at the larger end, which is almost covered by them: .71 x .56; .70 x .55; .69 x .56; .73 x .56; .71 x .58; .69 x .54.

Set XIV. June 10, 1888. Lacon, Ill. Nest of grass, etc., in an old woodpecker's hole. Five eggs, fresh. Glossy white, spotted with chestnut and olive-gray: .72 x .59; .72 x .59; .72 x .59; .76 x .58; .73 x .57.

Set XV. June 3, 1888. Burlington, Iowa. Nest in hole in old willow stump, standing in water. Six eggs, incubation begun. Light creamy white, with very little gloss, speckled with chestnut and olive-gray. The markings are a little heavier near the larger ends: .68 x .57; .68 x .56; .70 x .57; .71 x .58; .73 x .57; .71 x .57. This set contains a Cowbird's egg.

Set XVI. May 13, 1885. Lewis Co., Mo. Nest composed of grass, roots and moss, lined with hair, placed in a decayed willow stump, four feet above the water of a slough, three hundred yards from a river. Swampy land thereabouts, and wooded chiefly with willows. Five eggs, incubation one-third. Pinkish white, glossy, and very thickly speckled all over the surface with cinnamon-rufous, and a few specks of lilac-gray: .69 x .56; .68 x .56; .68 x .55; .69 x .55; .66 x .54.

Set XVII. May 29, 1887. Lacon, Ill. Nest of moss, etc., in hole in a stump. Six eggs, fresh. Light creamy white, glossy, spotted

with chestnut and olive-gray. The markings are heavier at the larger ends: .68 x .58; .70 x .55; .65 x .57; .64 x .54; .73 x .55; .71 x .54.

Set XVIII. June 10, 1888. Lacon, Ill. Nest of moss, etc., in a hole in old stump three feet up. Six eggs, fresh. Light creamy white, glossy, spotted and speckled with chestnut and olive-gray; the markings being heavier near the larger ends: .74 x .59; .70 x .58; .69 x .57; .70 x .55; .71 x .56; .69 x .54.

Set XIX. July 20, 1887. Lacon, Ill. Nest of moss in small knot hole in a live willow tree. Five eggs, fresh. Light creamy white, glossy, heavily speckled and spotted with russet and olive-gray. Near the larger ends the markings are much heavier: .66 x .60; .68 x .60; .70 x .60; .69 x .55; .65 x .56.

Set XX. May 28, 1889. Lacon, Ill. Nest of moss, feathers, etc., in hole in a dead willow tree. Five eggs, fresh. White, with little gloss, profusely speckled with chestnut and olive-gray: .68 x .57; .71 x .56; .64 x .54; .68 x .57; .69 x .57.

Set XXI. June 6, 1888. Marion Co., Mo. Nest made of moss and hair, in natural cavity of willow leaning over the water, and only six inches from it. Five eggs, incubation one-half. Light creamy white, glossy. Spotted, more heavily at the larger ends, with chestnut and olive-gray: .62 x .56; .67 x .57; .68 x .59; .65 x .55; .68 x .58.

Set XXII. June 3, 1888. Burlington, Iowa. Nest in hole of old willow stump, eight feet above the water. Six eggs, incubation begun. Creamy white, glossy and spotted, more heavily at the larger ends with chestnut and olive-gray: .74 x .54; .69 x .55; .69 x .54; .69 x .55; .69 x .55; .70 x .56. A Cowbird's egg was found with this set.

Set XXIII. June 8, 1888. Burlington, Iowa. Nest in hole in cottonwood tree, standing in the water. Six eggs, incubation begun. White and very glossy, spotted with chestnut and a few specks of olive-gray. The markings are very heavy near the larger ends, where they almost obscure the ground color: .67 x .55; .66 x .55; .65 x .54; .68 x .56; .69 x .56; .67 x .58.

Set XXIV. June 8, 1888. Burlington, Iowa. Nest in hole of dead tree. Six eggs, fresh. Light creamy white, glossy, and spotted with olive-gray and chestnut. Near the larger ends the markings form indistinct wreaths, but they are also present, to a less degree, on the remaining surface of the eggs: .67 x .54; .67 x .58; .68 x .58; .68 x .59; .65 x .54; .65 x .56.

Set XXV. June 20, 1888. Burlington, Iowa. Nest in hole in willow stump, standing in the water. Eight eggs, fresh. Glossy white, spotted, more heavily at the larger ends, with chestnut and olive-gray: .71 x .57; .71 x .57; .71 x .58; .74 x .57; .71 x .58; .69 x .57; .68 x .57; .70 x .57.

Set XXVI. June 10, 1888. Lacon, Ill. Nest of moss, in an old snag, seventeen feet up. Six eggs, fresh. Glossy white, heavily spotted with chestnut. Five of the eggs are much more heavily marked near the larger ends, but the sixth is the reverse: .68 x .55; .69 x .55; .69 x .56; .68 x .56; .68 x .54; .70 x .58.

Set XXXVII. May 19, 1886. Adams Co., Ill. Nest of moss, lined with a few hairs, in a woodpecker's hole in dead willow, thirteen feet up, about three hundred feet from any body of water. In a thick wood of birch, elm, and willow, swampy during spring months. Five eggs, fresh. Creamy white, glossy, speckled and spotted with chestnut and olive-gray. Near the larger ends the markings are much heavier: .71 x .55; .69 x .56; .68 x .55; .69 x .57; .67 x .55.

Set XXVIII. June 3, 1888. Burlington, Iowa. Nest in hole in willow stump, eight feet above the water. Six eggs, incubation begun. Glossy white, heavily spotted with burnt umber, chestnut and olive-gray: .68 x .56; .68 x .56; .65 x .54; .68 x .55; .69 x .55; .68 x .55.

Set XXIX. June 21, 1888. Lacon, Ill. Nest of moss, etc., in an old woodpecker's hole. Five eggs, incubation advanced. Glossy white, heavily spotted (especially at the larger ends) with chestnut and lilac-gray. One of the eggs has a distinct wreath near the larger end: .71 x .60; .69 x .60; .72 x .59; .69 x .57; .70 x .55.

Set XXX. June 5, 1888. Burlington, Iowa. Nest in willow stump, on water's edge. Seven eggs, incubation begun. Light creamy white, glossy and spotted with burnt umber, chestnut and olive-gray: .75 x .58; .72 x .57; .73 x .58; .71 x .57; .71 x .56; .72 x .56; .67 x .54.

Set XXXI. June 3, 1888. Burlington, Iowa. Nest in hole in willow stump, ten feet up. Six eggs, incubation begun. Light creamy white, glossy, speckled and spotted, more heavily at the larger ends, with chestnut and olive-gray: .70 x .54; .70 x .54; .70 x .53; .69 x .54; .70 x .54; .71 x .53. This set also contains a Cowbird's egg.

Set XXXII. June 1, 1888. Lacon, Ill. Nest of moss and grass, in an old woodpecker's hole. Five eggs, fresh. White and very glossy. Spotted, more heavily at the larger

ends, with chestnut and olive-gray: .71 x .57; .68 x .56; .71 x .57; .72 x .58; .66 x .54.

Set XXXIII. June 2, 1888. Burlington, Iowa. Nest in old stump, at water's edge. Six eggs, fresh. Light creamy white, and not very glossy, speckled and spotted all over the surface with chestnut and lilac-gray. Near the larger ends the markings form indistinct wreaths: .69 x .55; .68 x .54; .69 x .55; .68 x .54; .67 x .56; .68 x .55.

Set XXXIV. June 10, 1888. Lacon, Ill. Nest of moss and grass, in an old woodpecker's hole. Six eggs, fresh. Pinkish white, glossy and profusely speckled all over the surface. At the larger ends the markings are heavier: .70 x .58; .69 x .58; .69 x .55; .69 x .54; .66 x .55; .67 x .54.

Set XXXV. June 2, 1888. Lacon, Ill. Nest of rootlets alone, in woodpecker's hole, four feet up. Five eggs, fresh. Light creamy white, with a slight gloss, heavily spotted with chestnut and olive-gray. At the larger ends the markings are very much heavier and closer together: .67 x .60; .69 x .60; .67 x .60; .67 x .60; .68 x .60.

Set XXXVI. May 30, 1888. Burlington, Iowa. Nest in old sycamore stump six feet up. Six eggs, fresh. Light creamy white, not very glossy, heavily spotted with chestnut and olive-gray. While the markings are all over the surface they are so heavy at the larger ends that they almost obscure the ground color: .70 x .55; .70 x .55; .69 x .56; .69 x .57; .69 x .56; .70 x .56.

Set XXXVII. June 6, 1888. Burlington, Iowa. Nest in willow log. Six eggs, fresh. Light creamy white, glossy. Spotted, more heavily at the larger ends, with chestnut and olive-gray: .66 x .57; .66 x .55; .67 x .58; .67 x .55; .67 x .58; .67 x .56. A Cowbird's egg was found in this nest.

Set XXXVIII. May 28, 1888. Burlington, Iowa. Nest in hollow tree at water's edge. Seven eggs, fresh. Creamy white, glossy. Spotted, more heavily at the larger ends, with chestnut and olive-gray: .71 x .57; .72 x .59; .70 x .58; .71 x .56; .74 x .58; .74 x .59; .74 x .60. This set also contains an egg of the Cowbird.

Set XXXIX. June 10, 1888. Burlington, Iowa. Nest in an old stump, four feet above the water. Seven eggs, incubation advanced. White, not very glossy. Speckled and spotted with lilac-gray, russet and chestnut. On some of the eggs the specks cover all the surface, while on others the markings take the form of spots, and are heavier near the larger ends. One of the eggs has a wreath of chestnut spots

near the larger end: .74 x .53; .69 x .56; .68 x .56; .69 x .57; .69 x .56; .69 x .57; .71 x .53.

Set XL. May 29, 1887. Adams Co., Ill. Nest of moss and a little grass, lined with a few hairs, in a small hole in a corner of an old ice-house, about fifteen feet from the ground and three hundred yards from any water. Five eggs, fresh. Creamy white, not very glossy. Three of the eggs are speckled (more heavily near the larger ends) with chestnut and olive-gray. The other two are heavily spotted near the larger ends, with the same colors: .69 x .58; .67 x .58; .77 x .58; .67 x .58; .63 x .55.

Set XLI. May 23, 1889. Adams Co., Ill. Nest in natural cavity of a living willow tree, at end of long leaning limb. The hole contained moss for about six inches, then a small nest or outer lining of roots and brown hair. The materials used are about three-quarters moss, one-eighth roots, and one-eighth hair. The moss was loosely piled in first until the hole was well filled up. At the bottom the moss was damp and green. Eight eggs, incubation commenced. Light creamy white, glossy and very heavily spotted all over the surface with chestnut and olive-gray: .69 x .54; .71 x .55; .73 x .58; .72 x .58; .74 x .58; .69 x .58; .71 x .56; .69 x .55.

Set XLII. May 27, 1878. Muscatine, Iowa. Nest of moss and sticks in willow stub, at edge of slough. Five eggs, fresh. Creamy white, glossy. Heavily speckled and spotted all over the surface, but more heavily at the larger ends, with chestnut and olive-gray: .69 x .56; .71 x .58; .69 x .57; .70 x .56; .71 x .57.

Set XLIII. June 16, 1888. Burlington, Iowa. Nest in willow stump in water. Seven eggs, fresh. Light creamy white, glossy. Profusely speckled and spotted all over the surface with cinnamon-rufous, chestnut and olive-gray: .75 x .58; .73 x .57; .74 x .58; .70 x .56; .73 x .58; .70 x .58; .68 x .54.

Set XLIV. May 20, 1887. Adams Co., Ill. Nest in a large and broken out hole of an old, rotten willow trunk leaning over the water, in a large slough. Nine feet above the water. Made of grass in the bottom of the hole, then a mass of moss nearly filling it up, then a layer of fine hair and grass. Six eggs, incubation begun. Glossy white, heavily spotted, especially at the larger ends, with cinnamon-rufous, chestnut, and olive-gray: .66 x .57; .65 x .58; .66 x .58; .66 x .55; .68 x .58; .71 x .57.

Set XLV. June 5, 1888. Burlington, Iowa. Nest in hole of oak tree, in water. Six eggs, incubation advanced. Creamy white, not

very glossy. Speckled and spotted with russet, chestnut and olive-gray. Near the larger ends the markings are heavier: .72 x .57; .71 x .57; .72 x .57; .75 x .58; .74 x .56; .74 x .58.

Set XLVI. June 3, 1888. Burlington, Iowa. Nest in hole in dead stump standing in water. Six eggs, fresh. Light creamy white, not very glossy. Spotted, more heavily at the larger ends with chestnut and olive-gray: .70 x .56; .69 x .55; .74 x .59; .75 x .60; .78 x .62 (the largest egg of this species I ever saw); .67 x .55. This set also contains a Cowbird's egg.

Set XLVII. June 6, 1888. Burlington, Iowa. Nest in elm log. Six eggs, fresh. Glossy white, profusely speckled and spotted, especially at the larger ends: .71 x .58; .71 x .59; .71 x .58; .69 x .58; .71 x .58; .70 x .56. A Cowbird's egg was found with this set.

Set XLVIII. June 3, 1888. Burlington, Iowa. Nest in hole in elm tree. Seven eggs, fresh. Light creamy white, glossy. Speckled and spotted with chestnut and olive-gray. The markings are much heavier near the larger ends, and on some of them they form indistinct wreaths: .65 x .55; .67 x .55; .68 x .56; .72 x .59; .66 x .56; .65 x .55; .65 x .55; .66 x .55.

Set XLIX. May 21, 1883. Carroll Co., Indiana. Nest in hole in a small dead snag, about six feet from the surface of the water. Five eggs, incubation begun. Light creamy white, very glossy. Very heavily spotted all over the surface with chestnut and olive-gray. Near the larger ends the markings become almost confluent, and form wreaths: .70 x .54; .70 x .55; .73 x .56; .71 x .55; .70 x .55.

Set L. June 3, 1888. Burlington, Iowa. Nest in hole of willow stump, eight feet up. Seven eggs, fresh. Light creamy white, with slight gloss. Heavily spotted, especially at the larger ends, with russet, chestnut and olive-gray: .72 x .55; .73 x .56; .73 x .56; .74 x .57; .71 x .56; .67 x .56; .73 x .54.

Set LI. May 27, 1889. Lacon, Ill. Nest of moss, grass, rootlets, etc., in hole in leaning willow, only a few inches above the water. Six eggs, fresh. Glossy white, heavily spotted with chestnut and olive-gray. Near the larger ends the markings are much heavier: .67 x .55; .67 x .55; .67 x .56; .69 x .56; .69 x .57; .70 x .57.

Set LII. June 3, 1888. Burlington, Iowa. Nest in willow stump, ten feet up. Six eggs, fresh. Light creamy white, very glossy. Speckled and spotted with chestnut and olive-gray. The markings are so heavy near the larger ends that they are almost confluent, and

they there form wreaths: .70 x .56; .70 x .56; .68 x .56; .72 x .57; .70 x .55; .72 x .56. This set contains a Cowbird's egg.

Set LIII. June 6, 1888. Burlington, Iowa. Nest in hole in elm tree. Six eggs, incubation advanced. Glossy white, speckled and spotted with chestnut and olive-gray. Three of the eggs are very heavily marked, but the other three are much less so: .68 x .55; .68 x .56; .68 x .56; .71 x .59; .69 x .55; .74 x .60.

Set LIV. June 1, 1888. Burlington, Iowa. Nest in willow stump in water. Seven eggs, fresh. Light creamy white, glossy, spotted all over the surface with burnt umber and olive-gray. The quantity of olive-gray on this set is very unusual, and gives it a very odd appearance: .71 x .55; .74 x .55; .70 x .54; .74 x .56; .71 x .52; .76 x .56; .64 x .54.

Set LV. June 2, 1888. Burlington, Iowa. Nest in hole in oak tree. Six eggs, incubation begun. Creamy white, not glossy. Heavily spotted all over the surface with cinnamon-rufous and olive-gray: .68 x .54; .69 x .55; .70 x .55; .70 x .55; .74 x .56; .68 x .55. A Cowbird's egg was found with this set.

Set LVI. June 2, 1888. Burlington, Iowa. Nest in willow tree. Five eggs, fresh. Light creamy white, glossy. Heavily spotted, especially at the larger ends, with cinnamon-rufous and olive-gray: .71 x .58; .71 x .56; .71 x .57; .69 x .55; .68 x .55. Three Cowbird's eggs were found with this set.

Set LVII. June 26, 1888. Burlington, Iowa. Nest in hole in cottonwood tree on water's edge. Six eggs, fresh. Pinkish white, glossy and very heavily spotted all over the surface with cinnamon-rufous and a few specks of olive-gray: .73 x .59; .70 x .57; .72 x .58; .73 x .59; .74 x .60; .74 x .59.

Set LVIII. June 3, 1888. Burlington, Iowa. Nest in hole in willow stump, ten feet up. Seven eggs, fresh. Light creamy white, glossy. Heavily spotted, especially at the larger ends, with cinnamon-rufous and olive-gray. Two of the eggs have large blotches: .70 x .55; .70 x .54; .69 x .54; .69 x .54; .64 x .52; .70 x .54; .70 x .57.

Set LIX. June 8, 1888. Burlington, Iowa. Nest in hole in elm tree in water. Six eggs, incubation advanced. Pinkish white, glossy, profusely speckled all over the surface with vinaceous, cinnamon-rufous and lilac-gray: .67 x .55; .69 x .58; .68 x .57; .69 x .57; .71 x .58; .70 x .57. A Cowbird's egg was found with this set.

Set LX. June 2, 1888. Burlington, Iowa. Nest in hole in oak tree. Seven eggs, fresh.

Glossy white, heavily spotted all over the surface, but more so at the larger ends, with chestnut: .71 x .59; .70 x .55; .70 x .60; .70 x .55; .71 x .58; .73 x .59; .69 x .58. A Cowbird's egg was found with this set.

Set LXI. June 2, 1888. Burlington, Iowa. Nest in hole in elm tree. Six eggs, fresh. Creamy white, not very glossy. Heavily spotted with chestnut and olive-gray. Near the larger ends the markings are much heavier: .75 x .58; .66 x .55; .69 x .57; .71 x .57; .69 x .56; .70 x .55. A Cowbird's egg accompanied this set.

Set LXII. June 2, 1888. Lacon, Ill. Nest of moss, grass, and hair, in knot hole of willow, fifteen feet above the water. Five eggs, fresh. Creamy white, and very glossy. Speckled and spotted with chestnut and olive-gray. Near the larger ends the markings are so close together that they almost obscure the ground color: .72 x .56; .74 x .55; .73 x .56; .72 x .56; .73 x .55.

Set LXIII. May 30, 1888. Burlington, Iowa. Nest in hole in old oak tree, about eight feet up. Four eggs, fresh. Creamy white, not very glossy. Speckled and spotted all over the surface with chestnut and olive-gray: .71 x .55; .71 x .55; .71 x .56; .74 x .58. Four Cowbird's eggs were found with this set.

Set LXIV. June 16, 1888. Burlington, Iowa. Nest in hole in willow stump, eight feet above water. Seven eggs, fresh. Glossy white, very heavily spotted with chestnut and olive-gray. Some of the eggs are almost unmarked near the smaller ends, but all are so heavily marked at the larger ends that the ground color is obscured. One egg has a large blotch of vinaceous: .66 x .55; .67 x .56; .68 x .55; .68 x .55; .68 x .53; .66 x .54; .64 x .52.

Set LXV. June 8, 1888. Burlington, Iowa. Nest in hole in cottonwood tree, in water. Seven eggs, incubation advanced. Pinkish white ground color, glossy, and very heavily spotted all over the surface with cinnamon-rufous. On five of the eggs the ground color is almost hidden by the markings: .69 x .55; .71 x .55; .68 x .54; .68 x .54; .68 x .56; .70 x .58; .69 x .55.

Set LXVI. May 23, 1887. Marion County, Ill. Nest in decayed cavity of birch stump, leaning towards the water, two feet up. Made of moss only. Five eggs, incubation commenced. Pinkish white and glossy. Very heavily marked all over the surface with cinnamon-rufous: .69 x .55; .71 x .56; .67 x .55; .67 x .54; .70 x .55.

Set LXVII. June 16, 1888. Burlington,

Iowa. Nest in hole of willow stump, eight feet above the water. Seven eggs, fresh. Glossy white, heavily spotted with chestnut and olive-gray. The markings are evenly distributed all over the surface: .67 x .56; .65 x .56; .68 x .57; .67 x .55; .68 x .56; .66 x .56; .67 x .56.

Set LXVIII. June 8, 1888. Burlington, Iowa. Nest in hole in maple stump, standing in the water. Six eggs, incubation advanced. Creamy white, glossy. Heavily spotted with cinnamon-rufous and a few traces of olive-gray. On two of the eggs the markings are much heavier at the larger ends: .72 x .58; .74 x .58; .73 x .58; .70 x .57; .77 x .59; .67 x .55. A Cowbird's egg was found with this set.

Set LXIX. June 6, 1888. Burlington, Iowa. Nest in hole of elm, on water's edge. Six eggs, fresh. Glossy white, heavily speckled and spotted, especially at the larger ends, with cinnamon-rufous and olive-gray: .66 x .57; .64 x .55; .66 x .56; .66 x .55; .65 x .56; .68 x .55.

Set LXX. June 10, 1887. St. Louis, Mo. Nest of moss, grass, etc., in hole of willow, standing in a lake. Creamy white, not very glossy. Profusely speckled and spotted with burnt sienna, and a few traces of olive-gray. At the larger ends the markings are so heavy that they obscure the ground color: .65 x .50; .68 x .50; .66 x .52; .67 x .50.

In very few of the sets are the gray markings noticeable unless looked for, because the brilliant red obscures them, and at a short distance the markings all appear red.

In shape most of the eggs are rounded ovate, with the smaller ends very blunt, but they vary very much in this respect.

J. P. N.

Eggs of the Tufted Tit.

In reading Mr. J. P. N.'s description of a series of eggs of the Tufted Tit (*Lophophanes bicolor*) I came across some sets described from Wake Co., N. C., collected by us. In this connection I wish to call attention to the descriptions of set XXII, collected June 8, 1888, and set XVII collected May 2, 1889. In each case it will be seen that the eggs were very heavily spotted with burnt sienna, so as to almost obscure the ground color at the larger ends, and in each case one egg was much less marked than the others. Now these two sets were each taken from hollows in old apple trees in the same orchard not

many yards apart, and I presume were probably laid by the same pair of birds, though in different years.

C. S. Brimley.

Raleigh, N. C.

[I have always maintained that the same bird always reproduces any peculiarity in the markings of its eggs in subsequent sets, and I am a firm believer in this theory. I may add that the well-known oölogist "J. M. W." (Mr. C. L. Rawson) fully agrees with me as to this. J. P. N.]

Nesting of the Whip-poor-will.

Just a month before the Whip-poor-will's cry is heard in Virginia, the Chuck-will's-widow utters its first note in South Florida.

While stopping over night at Bordentown on the Manatee River, on March 26, 1890, I heard the cry of the Chuck-will's-widow for the first time. The bird was quite a distance off, and the notes came to my ear faintly; but though I had never heard the bird before I recognized the cry easily, and enjoyed listening to it for a long time.

A resident told me the birds had begun to call but a few days previously.

The next evening I was at my destination on the shore of Little Sarasota Bay. Here four or five birds could be heard calling at a time.

This species is not found among the pines, but prefers the wooded "hammocks" and "sloughs." The "hammocks" are low, damp, sometimes marshy, tracts, usually near a body of water, and generally covered with a growth of deciduous trees and bushes. The "sloughs" are the drains of the country in the wet season, from a few yards to a hundred yards wide, and sometimes extend for miles to a river or the "Gulf." Their depression is hardly noticeable, and often they are covered or fringed with deciduous trees.

As I listened to the birds evening after evening, I longed more and more for a pair of their eggs, but felt how little was my chance of getting them out of the dense jungle, where I was almost afraid to put my foot for fear of water moccasins and the deadly diamond rattler. However, fortune favored me.

The season had been unusually dry and all vegetation was like tinder; my host, fearing that if fire was started inland and be driven towards the coast it would destroy his house, chose a favorable day, and set fire to the woods, believing it would burn towards the

interior and leave him without fear of danger in the future.

Unfortunately the wind changed and drove the fire back, and it was only after a hard fight that the house was saved. The fire made a clean sweep along the bay shore, burning up all low vegetation and charring the trees to a height of twenty or thirty feet.

Much to my satisfaction it had killed or driven off the snakes, and I was now able to go about the country without fear of them, but if there had been any eggs in the woods it seemed impossible that they should have escaped destruction.

The fire occurred April 11th; on the 13th I was walking through a hammock, about a hundred yards from the bay, when a Chuck-will's-widow flew up a few yards from me, and almost instantly I saw its two handsome eggs lying on some dry leaves. Upon blowing them I found them to be incubated at least two days, as the yolks had bloody strings in them, proving that they had been deposited previous to the 11th.

The eggs were laid on a spot of ground not more than a foot in diameter, covered with dry leaves, which the fire had not touched, though it had burned right up to the edge of the spot and all around it. It will remain a mystery to me why that particular spot escaped. Never was an oölogist more delighted than I was when I saw those two beauties; since that time their markings have faded so that much of their beauty is lost.

The owner of the nest flew off with a whining cry, and remained out of sight.

During a cruise down the coast I heard the birds by night on the islands as well as on the mainland, and found one nest. On May 6th I landed on a little key in Lemon Bay, near its shore, to gather some Spanish moss. The little island was densely overgrown with cedars, Spanish bayonets and bushes. From the bare ground under a little cedar tree I flushed the bird from its two little ones, covered with brown down. The old bird fluttered about in great distress while I was admiring its treasures, so I soon left it.

On my return to Little Sarasota Bay I found that my host had taken two or three sets of eggs of this species along the Myakka River, about ten miles inland. He said the birds were much more common there than on the coast.

Harry K. Jamison.

Manayunk, Phila.

[It is to be hoped that Mr. Jamison will give us more of his interesting experiences in the South.—J. P. N.]

Eggs of the Everglade Kite.

The eggs of the Everglade Kite (*Rostrhamus sociabilis*) are extremely rare, and the only set that I know of in any of the collections besides the one now before me is one consisting of three eggs, formerly in the Bailey collection, and described in *The Auk*, Vol. 1, p. 95. They are now in the American Museum of Natural History, New York, and are 1.91 x 1.50; 1.80 x 1.51, and 1.80 x 1.45. Davie (*Nests and Eggs of North American Birds*, 1889, p. 168) describing them from the account in *The Auk*, above referred to, says: "The color of one is light brown, nearly obscured by large blotches of dark and reddish-brown; another has a dirty white ground color, with spots and blotches of various shades of brown, which become smaller and fewer at the smaller end. It resembles the common varieties of eggs of the European Sparrow Hawk (*Accipiter nisus*). The third is of a greenish-white; over the smaller end are scrawls, lines, and a few spots of light and dark brown."

The set now before me, (which as above stated, is the second one known in any collection), I have recently received, and their great rarity as well as their beauty seems to warrant their description in these pages.

The nest was located in March, 1890, at Bonnet Lake, Lee County, Florida. It was built in a willow tree, and was constructed of twigs of that tree. The tree stood in a swamp, and the mud and water were waist deep, so that it was only after hard work, wading through the swamp, that the nest was reached.

The eggs, two in number, were taken April 23, 1890, and incubation was so far advanced that it was a difficult job to prepare them at all. The bird was on the nest when they were taken.

They are ovate in shape, with rounded ends and no perceptible point, although one end is smaller than the other. In general appearance they bear a strong resemblance to light colored eggs of the White-tailed Kite (*Elanus leucurus*) but they are of course much larger than the latter. Their ground color is a dull white, very thickly spotted and splashed with small blotches of burnt umber and tawny olive. The markings on one egg are thicker than on the other, and this one is more heavily marked at the larger end. The more lightly marked egg, on the contrary, has more markings grouped around the smaller end. They are very handsome eggs, and measure 1.86 x 1.42; and 1.81 x 1.43.

J. P. N.

A New Trait of the English Sparrow.

Last summer I was told by a young clergyman that when he was in college he used to watch a pair of Robins that had a nest in a bush below his window. There were two eggs in the nest. One day he looked out of the window and saw in place of the eggs two downy young birds. A day or two after he was again at the window with a companion, when they perceived that there was only one young bird in the nest. While they were wondering why one should have disappeared, the old Robins flew away to get food, when a flock of English Sparrows came to the nest, and pecked and scratched the remaining young one until it was dead, finally lifting it bodily and dropping it to the ground below. The young men hurried down below the nest, but the young Robin was dead and very much mutilated, while the Sparrows had disappeared.

I have always thought the English Sparrow a miserable scamp, but the above trait is a surprise, and a new source of indignation against this pest.

Henry L. Beadel.

New Brighton, Staten Island, N. Y.

Who Will Furnish the Incubator?

Did any one ever take twenty-four eggs from the nest of one bird in a season? I did, this year. On May 4th I took a set of six eggs of the Western Bluebird from a nest built in a bird box, and on the 16th there were seven more eggs in it. I took five of these, leaving two, and as an experiment, put three fresh eggs of the Western Chipping Sparrow in with them. The Bluebird, for some reason, threw her own eggs out of the nest, but hatched out the "Chippie's." As soon as they were old enough to leave the nest the male bird took care of them until they were large enough to care for themselves.

A month later there was a set of six eggs in the nest, which I took, and by July 8th there were five more. The birds, no doubt feeling discouraged by this time, deserted the nest.

I also took a set of five eggs from the same box, and perhaps the same bird as well, the year before.

There was a pair of Violet-green Swallows trying to nest in another box near by, and every time the eggs of the Bluebird were taken the Bluebirds would try to drive the Swallows away from their home, and on one occasion threw all of the nest out of the box. They evidently thought the Swallows destroyed their eggs, and took revenge in this way.

Salem, Oregon.

Clyde L. Keller.

White-bellied Swallows Occupy a Chimney Before Migrating.

About the first of September last, while standing at my store door just before dark, I saw a large flock of White-bellied Swallows hovering around the chimney of Odd Fellows' hall, which is opposite. While watching them they began to go into the chimney, sometimes a half dozen at once. This continued until all had disappeared in the chimney. There must have been at least one hundred and fifty. A neighbor, coming along at the time, informed me that he had seen them go in the chimney for a week. Is this not a rare occurrence?

Lynn, Mass.

N. Vickary.

Handsome Eggs of the Sparrow Hawk.

In a large series of eggs one is almost sure to see one or more sets that are especially handsome. So it is with the series of eggs of the Sparrow Hawk (*Fulco sparverius*) now before me. The series consists of thirty-one sets, and was selected with great care to exhibit all the variations to which the eggs of this bird are subject. I thought this object had been accomplished before the arrival of the set I now desire to refer to, but the latter was so entirely different from all the others that it took me completely by surprise when it was unpacked.

The eggs were collected March 29, 1889, at Archer, Florida, and are unquestionably to be referred to this bird, but they are entirely different from any others that I have ever seen. Their ground color is a pure, dazzling white, and large portions of their surface are entirely unmarked. Now this is very different, to begin with, from all other sets of eggs of this bird that I have ever seen, and they number several hundred. In other sets the ground color is so covered with very minute specks of color as to impart a reddish hue to it—sometimes quite obscuring it, but this characteristic is entirely wanting in these. Then, too, the markings are of a brighter tint on these eggs than on any others of *F. sparverius* that have come under my notice. They consist of large blotches and spots of very bright hazel and cinnamon-rufous, made doubly bright by their contrast with the pure white ground color, and the entire absence of the minute specks above referred to.

On three of the eggs these blotches and spots are grouped at the larger ends; on the

fourth they are at the smaller ends; while the fifth has them on the centre of the surface. Four of the eggs are of normal size, measuring 1.35 x 1.07; 1.28 x 1.10; 1.29 x 1.10; 1.39 x 1.11; while the remaining one is very large, it measuring 1.50 x 1.19.

Every one who has seen them has pronounced them to be the handsomest eggs of this bird they have ever seen, and I cannot help sharing their opinion, although it is not good taste to express admiration for one's own belonging.

J. P. N.

Nesting of the Pied-billed Grebe.

I have read with interest in the O. & O. from time to time the notes from collectors of different localities on the nesting of the Pied-billed Grebe. I have made this bird a special study for some time, and am always glad to see any notes of interest any collector may bring out.

During the past season (1890) I had a good opportunity to observe them during the nesting season, and although I have often cautiously approached to where I could obtain a good view of the nest I have never yet been able to see a bird sitting.

The first nest found this summer was May 8th, and it contained two fresh eggs. Later in the day another nest was observed containing one egg. The eggs of both nests were only partially covered, and no old birds were in sight. Returning to the same locality on the 18th of the month one nest was found to contain five, the other four eggs. Incubation was begun in both sets. This time the eggs were completely covered, and were warm when taken from the nest.

Of fifteen nests examined this year six eggs were the most found in any one nest, and that only in one instance, the number being invariably five, but occasionally only four were found. I have never yet found a complete set of eggs that was not entirely covered with decaying vegetation, and the eggs always warm.

I have for some time been of the opinion that the Grebe in this locality does not sit on her eggs in the day time for the purpose of incubating, I having never seen or heard tell of one being seen so engaged. And although further observations may lead me to change my views, for the present I must believe that the Grebe does not sit on her eggs in the day time for the purpose of incubating, but that the incubation is carried on largely by heat generated from the decaying vegetation of

which the nest is composed. I should like to hear from others on this subject who have observed them breeding, for if I am not right I wish to know it.

T. G. Pearson.

Archer, Fla.

Number of Eggs in a Set of the Cardinal.

In Hale County, Alabama, three eggs constitute a complete set of the Cardinal. More than three have never been found by me, nor by any one else whom I know in this locality. Dr. J. M. Pickett of Cedarville, Alabama, has had the same experience as myself; he has never collected a set of more than three of the Cardinal, although he has taken many sets.

The Cardinal is one of our commonest birds, nesting from early in April till September, and therefore producing more than one set. This bird may lay fewer eggs to the set than in localities farther north, where the nesting period is short, and where one set may be the usual number.

Davie in *Nests and Eggs of North American Birds* says that the Red-eyed Vireo lays "three or four eggs;" in this latitude it lays only three. Having, like the Cardinal, a longer time for nesting, it produces fewer eggs to the set, but in all probability lays three more sets than in colder regions. It would be a very great surprise to me to find a set of more than three eggs in a nest of the Cardinal or of the Red-eyed Vireo. Wm. C. Avery.

Greensboro, Ala.

Eggs of Sharpe's Seedeater.

The eggs of Sharpe's Seedeater (*Sporophila morelleti sharpei*) have, I believe, never been described, and therefore I have special pleasure in doing so.

Last season Mr. Thomas H. Jackson's collector at Camargo, Mexico, was fortunate enough to find two nests, each containing three eggs. One of these nests, together with the eggs, is now before me, and may be thus described:

The nest is a very thin, frail structure, made of fine rootlets and dried grasses, and is quite flat. It was found in the centre of a small bush, near the ground. The eggs are ovate, of a pale, bluish green ground color, quite heavily spotted with olive-gray, and a few spots of black. They measure .64 x .47; .66 x .48, and .65 x .46.

J. P. N.

THE
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ESPECIALLY DEVOTED TO THE STUDY OF

BIRDS,

THEIR NESTS AND EGGS,

and to the

INTERESTS OF NATURALISTS.

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Editorial.

With this issue we close Vol. XV. It will reach you during the festivities of the closing year. We hope it will find you, one and all, happy and prosperous.

MARK THE CHANGE.

As previously noticed, in the future, the O. & O. will be published at Hyde Park, Mass.

SUBSCRIPTIONS.

We shall hereafter continue the O. & O. until notified to stop. Nearly all subscriptions expire at the end of the year. When you send in your annual fee (\$1.00) to our ornithological contribution box, a new subscriber with it will make our hearts palpitate with joy. Nature abhors a vacuum. Our pocket book is in that condition.

EXCHANGES.

Publishers are requested to send exchanges to our Hyde Park address.

Brief Notes.

On Nov. 26, 1890, the "J. P. N." collection of eggs, of Philadelphia, contained by actual count 530 species, 4,032 sets of eggs, and 17,022 eggs. This is now by far the largest private collection of eggs in the United States.

The above item cannot fail to convince any reader that with such a collection to use for comparison, the possessor should be good authority. The collection we know has been made under a scrutinizing surveillance that is characteristic of that gentleman.

In addition to the above the publisher has a scientific stock that exceeds that of any dealer in this country. Taking both, we claim to be authority. The back numbers of the O. & O. are full of facts on the subject, and an ornithologist who does not have them in his possession is behind the times.

We do not state the above in a spirit of braggadocio; simple cold facts.

A prominent feature of the January issue will be the publication of a description of a series of eggs of the Red-shouldered Hawk, that will be worth the price of a year's subscription. Seventy-seven sets—a series for variation and interesting connections—unequalled.

During the past year Mr. Norris has personally contributed several articles describing series of eggs, one of which is in this number, that are of the utmost value to our oölogists, and should be carefully read.

The index which we hand you with this issue has been prepared by "J. P. N."

Snowy Owls have appeared in unusually large numbers; more than in any year since the remarkable flight some ten years since. E. P. Wonson reports several at Gloucester. We received seven in twenty-four hours, and every day we are notified by postals from all over the New England coast of their appearance. Now is the time for you to get one for your collection.

FINE SPECIMEN OF THE SNOWY OWL.—A most elegant specimen of the Snowy Owl was killed in Little Compton on Wednesday by F. W. C. Almy of that town. It measured five feet, seven inches from tip to tip of wings. It will be mounted by I. M. Thrasher, taxidermist.—[Fall River News.]

Canadian customs officials at Windsor have been ordered to collect duty on all implements of American sportsmen coming into Canada for a day's shooting. The custom heretofore has been to require a small deposit, which was refunded.—[To-day.]

H. W. Marsden shot a Mockingbird at Quincy, Mass., Dec. 1. We personally examined it, and pronounced it not a cage bird. About the same time another was shot about twenty-five miles from this locality.

C. A. Barrett, the Purchase street dealer in hides, furnished us with a black bear from Manitoba that weighed 560 pounds. We shall mount it. When Harry gets to be that size—thunder!

Quail are plenty in many localities in this state. The efforts of the Massachusetts Fish and Game Association have been an important factor to this. Success to their efforts.

GOT SCORCHED—On Oct. 18, during the absence of Mr. Armstrong, the "bird man" of Field and Armstrong, Brownsville, Texas, a fire occurred by which they lost all their books and correspondence, but their stock of skins were saved. Parties corresponding are requested to please write them again.

In a letter, John C. Cahoon writes from Custlett, Cape St. Mary's: Say to my friends that I am well and happy, and then has the cheek to wish we were there to see how the wind blows. We have blowing enough of our own manufacture, thanks.

A short ride of about three hours out of Boston on the Old Colony road brought the writer to Bourndale, a town on Cape Cod. A mile and a half from the station is Great Heron Pond, a sheet of water of ancient record, into which projects an elevated peninsula known as Eagle Hill, owned by Wm. Eaton, whose guest I was to be for the day. On the top of the hill Mr. Eaton has located a cosy little summer residence, nearly surrounded by a pine grove, from which the view of the surrounding country is unusually picturesque. The base of the hill extends into the pond like an inverted U, and at the extreme point is one of the most comfortable ducking stands that it has been my pleasure to visit. A building of comfortable standing height, about eight feet square, some eight feet from the water, shielded on the water front by a four foot fence, contains stove, chairs, and lookout windows. Both building and fence are well covered with pine boughs, and met on both sides by a natural growth of bushes. A number of gunners can occupy the space between the building and fence, and move about with almost impunity. Anchored well out into the pond are floating geese, and nearer in duck decoys, while on the bar and back of the building are tethered ducks and geese, whose quacking and honkings soon call in to the stand all birds that stop. Another feature is the fact that the stand could be reached from the residence under the cover of natural growth. A number of Boston sportsmen enjoy the hospitality of Mr. Eaton during the season. Did I get anything? Ask the old gull that came lazily flapping over, if at least I did not come near it.

A number of eagles were noted here during the summer, Mr. Eaton referring particularly to an old white-headed one.

Several fine mink have come in during early November. The gunners sigh as they recall the days when their pelts brought seven to ten dollars.

The first wild cat of the season from R. E. Best, Kingston, N. Y.

The largest moose head this year, so far, from Wm. Read & Sons, Boston.

A party in Maine has just offered us a white porcupine (*albino*) alive. It would not make a good bed fellow.

The bear referred to in last O. & O. is still for sale.

Our bear Harry is growing finely. His appetite is excellent.

SWAN SHOOTING ON THE COLUMBIA RIVER.—Many are the sportsman who can tell of the variety of the game they have killed, from moose to Long Island chippies. Comparatively few, however, have, it is safe to say, enjoyed such rare sport as Mr. Thomas G. Farrell describes in an interesting article in *Outing* for December under the above title. He says: "As these birds breed in the Arctic, they leave the United States early in the spring. Upon the approach of cold weather in the high latitudes, they once more band together and hie themselves toward the sunny south. If a person happens to be near one of their winter resorts on the Columbia River about Nov. 1, he will probably hear their not unmusical voices high in the air. Here they remain the entire winter. Probably the chief attraction of this region for the huge birds is the presence in many lakes and sloughs of the aquatic plant known as the "wapato." The roots of the plant terminate in a number of bulbs about the size of an Italian chestnut. These bulbs are very much sought after by the greedy swan and equally greedy canvas-back, which two birds possess to a greater degree than any other member of the duck family the faculty of uprooting them."

A SAGACIOUS ROBIN.—Mrs. Burwell, of Westfield, Conn., found a helpless robin a year ago last summer, which had fallen from its nest while learning to fly. She placed it in a cage and raised it. This summer she released it, thinking the bird would be happier at liberty. The *New Haven Register* says that last week the robin returned to Mrs. Burwell's yard and flew upon her finger. When spoken to "he was willingly taken into the house, and there he gave unmistakable expressions of delight at being in his old home. After the excitement had passed away the empty cage was brought to the room and straight into it flew the robin. He hopped up to his perch, and there settled down in evident contentment. He hadn't forgotten where to look for his food nor for what his bath was intended. It is believed that the bird didn't know what else to do when the cold weather came."—Public Ledger, Philadelphia, Pa.

We cannot refrain from expressing our thanks to Robert Bleakie, Esq., of Hyde Park, for his assistance in the establishing of our headquarters in that place. Mr. Bleakie is one of the most prominent citizens. We believe that he is not an ornithologist but notice that he donated a stuffed specimen of the Great Blue Heron to the Waverly Club of which he is vice-president, and that a fine elk head adorns his office.

It is not probably known to our readers that Hyde Park was at one time noted as being the residence of a hermit, who was a taxidermist of extra abilities in his day. The writer remembers reading an illustrated article in regard to him years ago (*Harper's Weekly*?). Many of his birds are still in the town. We would

gladly publish a brief history of him, if anyone who was acquainted with him would give us facts.

Our second wildcat also came from R. E. Best, Kingston, N. Y. It weighed twenty-four pounds, and is said to be the largest ever shot in the county.

A Great Blue Heron was shot at Lexington, Dec. 8th. Rather late in the season.

In the November issue were two errors, the word full being used instead of fall Red Phalarope taken in Rhode Island, and the Franklin Gull advertised for sale should have been fall plumage.

Among the first to take notice of our future quarters was J. M. W., who sends in his sixteenth annual subscription. May they continue well into the future.

On Dec. 4, J. M. W. surprised two Snowy Owls on Groton Long Point, Conn., secured one. These make over sixty that have been reported to us in New England by persons with whom we are acquainted.

Tra, la la, 1890.

Correspondence.

Editors of O. & O.:

I wish to call the attention of the readers of the O. & O. to the new "Bachelder method" of recording daily observations on birds. This method, which Mr. Bachelder ably described in *The Auk*, for April, 1890, consists of recording the actual number of each species seen daily on sheets ruled for that purpose. I have used the system since January 1st, and find it to be entirely practicable in every way, while the results obtained are infinitely greater in importance than those of any other method known to me. My notes from January 1st to May 15th were recorded daily, and very successful, but to test the method further, I used a modified blank during the last of May, and until June 22d, while at sea, recording observations at the end of each hour from 4 A. M. to 8 P. M. instead of daily, and the results were wonderful. For use during migrations the system cannot be surpassed, it being especially adapted to wave study, a branch of migration little understood by many observers.

If a number of active field workers who were interested in the subject were to organize a society in New England, similar to the "Delaware Valley Ornithological Club," the results of their combined efforts and division of labor could not fail to be highly interesting and equally important in promoting the science of Ornithology.

Hoping that the O. & O. will lend a helping hand toward the establishment of such an important institution, I am very respectfully,

Harry Gordon White.

U. S. Fish Commission, Wood's Holl, Mass.

Editor of O. & O.:

Yours of the 13th duly received, eggs and eyes also safely at hand. I will send check for balance and also renewal of subscription for O. & O., as the year is drawing to a close. I don't see anything new ornithologically very often, it's pretty much the same old story over and over now—and yet I did secure, November 9th, a pure White Sparrow, which I judge to be of the variety Tree Sparrow, though there is not the slightest mark to distinguish it—although so perfect an Albino it had perfectly black eyes.

Since I began to prepare this letter a Warbler, I should think a Pine Warbler, came on my arbor before my window when I was writing, I took my little gun and secured it. It's a little puzzling, only a very small white spot on one tail feather, each side quite yellowish on breast and throat, with faint yellow stripe over eye,—general colors like a Pine or female Black-poll Warbler, rather small for either. I have all our New England Warblers, but this seems to vary especially in the small amount of white on the tail. I think it most favors the Pine Warbler, especially on the wing markings. There was one *funny* thing happened about my place last summer which I mean to write up, if I ever get a chance, about a Bluebird that continued day after day and week after week to beat itself against my window.

John N. Clark.

Saybrook, Ct.

Editor of O. & O.:

You tell Mr. Chas. Hallock to get out on the river more and watch the descendants of the English Sparrow, for you know as well as I that they are all American born which we see to-day.

I can tell the *Forest and Stream* that the English Sparrow has cheated me out of many a bright insect, and that it is all out of place to say that they eat only the droppings, or what is fed to them.

I am English born, have been all over this globe, and think the *Forest and Stream* is clever, in its way, but let Mr. Hallock do as Wilson and Audubon did, see for himself. He cannot find out these things in a city, looking at ten-story buildings; he should be out in the woods.

J. F.





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